INSTRUCTION MANUAL

VA-SW8000
VA-SW8000LITE

DVR Utility Software

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Introduction

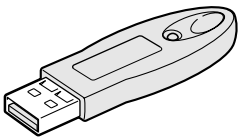
The DVR Utility Software provides a network-based remote monitoring system by connecting your computer(s) with digital video recorders (DVRs). The DVR Utility Software, which includes an extensive range of features that take full advantage of leading-edge technologies and network functions, is able to satisfy various monitoring needs including the demand for ease of use and extendability.

■ Features of the DVR Utility Software

- By simply installing DVR Utility Software on your computer(s), you can create a remote monitoring system that connects the computer(s) with DVRs via an IP network.
- A single network can contain up to eight computers connected with up to 4000 DVRs.
- From each networked computer, you can control networked DVRs using functions for monitoring, recording, playing back video as well as configuring the DVRs themselves.
- You can monitor video streamed from networked DVRs using a viewing pane that can be switched among three different layouts: single-view, four-view, and multi-view (4x4).
- All the functions of the DVR Utility Software can be operated via a simple graphical user interface that even novice users will find easy to use.
- The DVR Utility Software supports four levels of user access. When a user logs in, the DVR Utility Software enforces the user access level associated with the user's password, thus effectively protecting the system from unauthorized access.

■ DVR Utility Software in Two Editions

The DVR Utility Software is available in the following two editions:
(This user's guide covers both editions.)

Edition	VA-SW8000 (Standard Edition)	VA-SW8000LITE (Light Edition)
Available as:	Separately-sold package	Accessory that comes with the DVR
Functionality	Full functionality	Limited functionality (see P11 to 12)
Bundles	Hardware key (USB type) 	None

The VA-SW8000 (Standard Edition) cannot be started without the supplied hardware key connected to a USB port of the computer.

Network Configuration

■ Network Device Configuration

With the DVR Utility Software, you create a monitoring system that consists of DVRs, monitoring cameras, and one or more computers that act as remote controllers, all of which are connected via a dedicated independent network.

● Supported DVR Models

The DVR Utility Software supports the SANYO DVR models listed below.
All DVRs need not be the same model; a single network can contain two or more different models as needed.

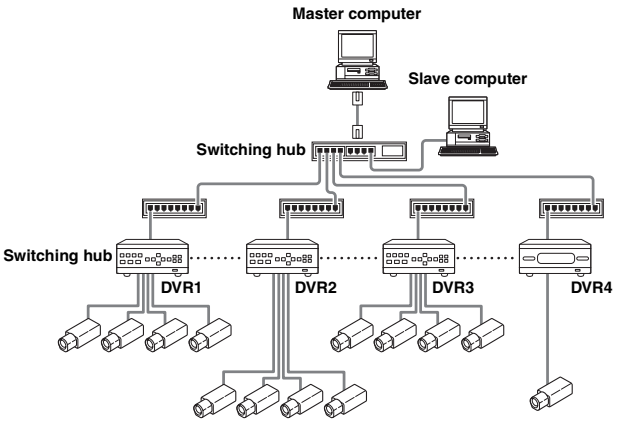
- Single-channel models: DSR-M800, DSR-M800P, DSR-M800PA, DSR-M810, DSR-M810P
- Four-channel models: DSR-M804, DSR-M804P, DSR-M814, DSR-M814P

- For SANYO DVR models not listed above, visit the SANYO Web site (http://www.sanyosecurity.com) and check the latest information.
- For the sake of simplicity, this guide assumes the use of the DSR-M804 or DSR-M814.

● Network Scalability

The dedicated network can accommodate the following:

- Up to 1,000 DVRs in the standard configuration
  (or up to a maximum of 4000 DVRs when an appropriate subnet mask setting is used)
- Cameras: Up to four times the maximum number of DVRs
- Up to eight computers (one master plus seven slaves)



About Master and Slave Computers

During initial setup, you specify a single computer that is authorized to register or delete networked DVRs, and this is called the Master computer. In addition to the Master computer, you can configure up to seven additional computers that are not authorized to register or delete networked DVRs, and these computers are called Slave computers.

After you have started the DVR Utility Software on a computer and logged into the system, you can determine whether to configure the computer as either “Master” or “Slave” using the [Options] window accessible from the Initial Set menu. For more information, see P73.

Network Configuration

■ Hardware and Software Requirements

The DVR Utility Software requires following hardware and software:

Computer	IBM PC/AT and compatibles
Operating system	Windows XP Professional SP2
CPU	Pentium 4, 3GHz or higher
Memory	512MB or more
Interfaces	100Base TX and USB (1.1)
Display	XGA (1024 x 768 pixels), 16 million colors or higher*1 AGP graphics card with hardware overlay support Or PCI Express graphics card*2 <Recommended graphics chip> ATI : RADEON9000 series or higher nVidia : GeForce4 series or higher : Quadro4 series or higher Matrox : MillenniumP series or higher
Sound	Sound card with 48 kHz stereo playback support (PCI connection recommended)*3

*1: When using the software at a resolution of 1024 x 768 pixels, open Windows Taskbar Properties dialog box and select the “Auto hide” check box.

*2: Requires the latest DirectX 9.0c compatible driver.

*3: A sound card is required to listen to the sound part in live or played back video.

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- **Meeting the above requirements does not guarantee consistent, stable video feed; video may not be correctly displayed due to a disturbance in sync signals.**
- **If the computer is underpowered or overloaded, the system may not function as expected, typically failing to display video frames smoothly at the correct rate.**

■ Notes on Version Compatibility

All networked computers (the Master and Slave computers) must have the same edition of DVR Utility Software installed (i.e., either VA-SW8000 or VA-SW8000LITE).

The DVR Utility Software in this new version (either the Standard or Light edition) is not compatible with any of the previous versions (VA-SW800/804/814/80LITE/81LITE), and therefore any Slave computers currently running an old version must be upgraded to the new version. Note that the hardware key (or serial number) from a previous version can still be used after the software has been upgraded to the new version.

On the upgraded computer, you can use any DVR registration lists created in a previous version by following a specific procedure (see P85).

Network Connection Requirements

Before using the DVR Utility Software, configure the DVRs and computers for network connectivity as instructed in the following sections.

● Configuring the DVRs

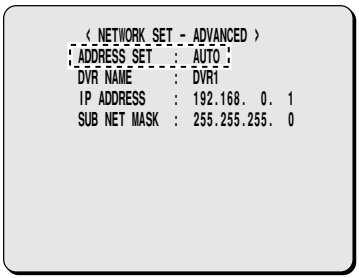
Configure NETWORK SET by following the instructions for IP address configuration given in the DVR's documentation.

- **Auto configuration**

  Set [ADDRESS SET] to "AUTO".

- **Manual configuration**

  Set [ADDRESS SET] to "MANUAL", and configure the IP address and subnet mask.



● Configuring the Computers

Configure the TCP/IP settings by following the relevant instructions given in the operating system documentation. For more information, see P6.

Examples of configured IP address ranges:

(These examples assume that IP address settings are configured in Auto configuration mode with the subnet mask set to the default of "255.255.252.0".)

DVRs:	Computers:
192.168.0.1-250	192.168.0.251-254
192.168.1.1-250	192.168.1.251-254
192.168.2.1-250	192.168.2.251-254
192.168.3.1-250	192.168.3.251-254

- **All the DVRs and computers must have their IP addresses configured in the same segment.**
- **Check with the network administrator to make sure that the IP addresses that you want to use do not conflict with IP addresses that are already in use by the network.**
- **If you connect a LAN cable or change the TCP/IP settings while the DVR Utility Software is running, a communication error may result. Be sure to quit the DVR Utility Software before making any change to the physical cable connection or the TCP/IP settings.**

Network Connection Requirements

Configuring the TCP/IP Settings

To configure the TCP/IP settings on each computer, follow these steps:

The DVR Utility Software supports Windows XP only.

1 **On the [Control Panel], click [Network and Internet Connections].**

The [Network and Internet Connections] window appears.

2 **Click [Network Connections].**

The [Network Connections] window appears. Make sure that the appropriate LAN card (Ethernet adapter) is shown under [LAN or High-Speed Internet].

3 **Right-click on the LAN card (Ethernet adapter), and then select [Properties (R)] from the pop-up menu.**

The [Local Area Connection Properties] window opens, and the [General] tab is selected by default.

4 **Make sure that [Internet Protocol (TCP/IP)] is checked (selected) under [This connection uses the following items: (O)].**

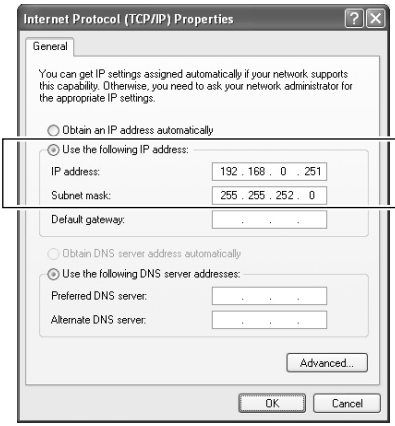
If [Internet Protocol (TCP/IP)] is not checked, select the check box.

5 **Click [Properties (R)].**

The [Internet Protocol (TCP/IP) Properties] window opens, and the [General] tab is selected by default.

6 **Select the [Use the following IP address:] check box, and type in the IP address and the subnet mask.**

For the standard configuration, enter a subnet mask of “255.255.252.0”.


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 0 . 251
Subnet mask:
255 . 255 . 252 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

7 **Check the settings, and then click [OK].**

This returns you to the [Local Area Connection Properties] window.

8 **Click [OK].**

Now the TCP/IP settings have been configured.

Installing the Software

The DVR Utility Software must be installed on each computer you want to connect to the dedicated network. The Setup program that runs from the Installation CD guides you through the process of installation.

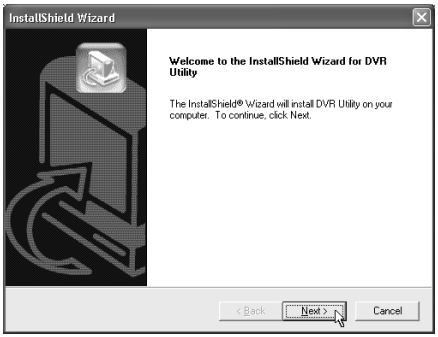
When you install the DVR Utility Software, the "**hardware key driver**" and "**MP2 Viewer**" (playback-dedicated application software) are installed as well.

1 **Insert the Installation CD into the CD-ROM drive of the computer.**

The "Welcome" screen appears.

2 **Click [Next] on the "Welcome" screen.**

The [License Agreement] screen appears.


InstallShield Wizard
Welcome to the InstallShield Wizard for DVR Utility
The InstallShield® Wizard will install DVR Utility on your computer. To continue, click Next.
< Back
Next >
Cancel

3 **Click [Yes] in the [License Agreement] window.**

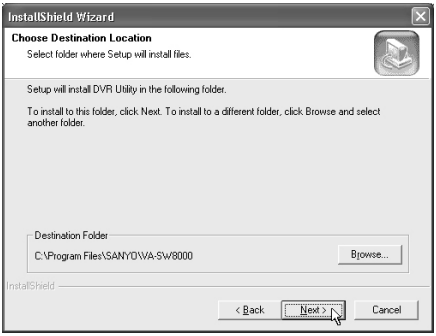
Read and accept the User License Agreement displayed on the screen.

InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
Note: You must read this Software License Agreement before using the software
SOFTWARE LICENSE AGREEMENT
This Software License Agreement ("Agreement") is a legal agreement between you and SANYO Electric Co., Ltd. ("SANYO") setting forth the terms and conditions for your use of the Software defined below.
By installing or using the Software, you signify that you agree with the terms and conditions of this Agreement. If you do not agree with the terms of this Agreement, you are not licensed to install nor use the Software.
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install DVR Utility, you must accept this agreement.
InstallShield
< Back
Yes
No

4 **The [Choose Destination Location] screen appears. Accept the default location or specify another location, and click [Next].**

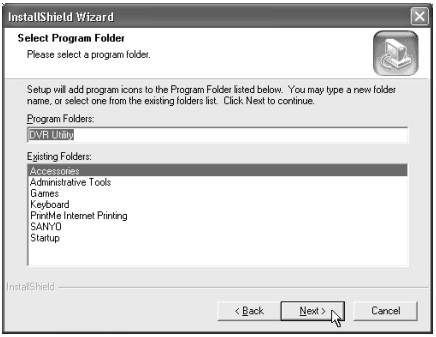
Accept the default installation folder unless your situation requires another location (for example, due to disk capacity limitation), and click [Next].

If you want to override the default installation folder for some reason, click the [Browse..] button and select a different folder where you want to install the software.


InstallShield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install DVR Utility in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\SANYO\VA-SW8000
Browse...
InstallShield
< Back
Next >
Cancel

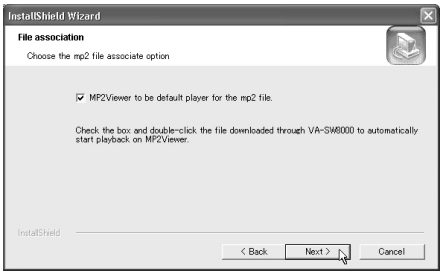
5 **The [Select Program Folder] screen appears. Check the program folder, and click [Next].**

Normally you can accept the default folder without changing it. If you want to change the program folder, type the folder name into the box, or select an existing folder from the list underneath.



6 **Configure file association on the [File association] screen and click [Next].**

When you select the check box, double-clicking the MP2 file (the file extension “mp2” file saved in MPEG2 format) that was downloaded by this software automatically starts playback on the “MP2 Viewer” (see P58, 125).


InstallShield Wizard
File association
Choose the mp2 file associate option
MP2Viewer to be default player for the mp2 file.
Check the box and double-click the file downloaded through VA-SW8000 to automatically start playback on MP2Viewer.
InstallShield
< Back
Next >
Cancel

7 **Start the Installation Process.**

When you click [Next] on the previous screen, the Setup program starts the installation process, and the [Setup Status] screen indicates the setup status with progress bars.

8 **Reboot the computer.**

When the “Installation completed” message is displayed, specify whether to reboot your computer right now or later by selecting the appropriate option, and then click [Finish]. If you choose the first option (default), your computer will be automatically rebooted after you exit from the Setup program.

InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed DVR Utility. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
< Back
Finish
Cancel

9 **Make sure that shortcut icon has been created.**

After rebooting your computer, make sure that the “DVR Utility” shortcut icon is displayed on the desktop. You can double-click the icon to start the DVR Utility Software.

☞How to uninstall the software

To uninstall (remove) the DVR Utility Software, open the [Add or Remove Programs] window from Windows control panel. Select “DVR Utility”, and click the [Remove] button.

When you upgrade to the new version of the DVR Utility Software, accept the option to remove the old version in the confirmation dialog displayed during the installation of the new version. Then the old version will be automatically removed.

Setting Up the System

Once you have completed the installation process, you should set up your monitoring system to make it up and running as outlined in this section.

This section simply describes basic procedures; for more information, see the descriptions given on the referenced pages.

Starting Up the Master Computer and Configuring Initial Settings

As outlined below, start up the Master computer, and configure settings that are required to make the system up and running.

1 **Start the software (see P13).**

Double-click the shortcut icon on the desktop to access the Login window.

2 **Log into the system (see P14).**

Enter your user name and password.

When you log in for the first time, enter the default values for user level ID4.

Default values:

- **User Name: ID4**
- **Password: 4444**

3 **Register DVRs (see P81).**

Once you have logged in, the [Register DVR] window (accessible from the Initial Set menu) is automatically displayed. On this window, register DVRs you want to connect to the network.

4 **Configure other initial settings (see P73).**

Once you have registered the DVRs, your computer starts receiving live video fed from the registered DVRs and you can watch the video on the computer screen.

In addition, you can access the settings specific to the registered DVRs (cameras) through the computer screen. Use the following menu items contained in the Initial Set menu to configure other settings as needed.

- **Options:**

  You can configure settings pertaining to the system environment and operating conditions.

- **Tree Edit:**

  You can add camera titles and groups to the tree list to make it well-organized.

- **User ID:**

  Configure user names and passwords that are required when logging into the system.

5 **Configure advanced settings as needed.**

Now the Master computer is ready for basic operations.

After this, configure advanced settings using various configuration menu items, and customize your system based on actual monitoring needs.

(The following sections describe how to connect Slave computers and how to disable the firewall protection at the initial start-up.)

Setting Up Slave Computers

If your system uses additional computers (“Slave” computers) connected to the network in addition to the Master computer, be sure to configure the following initial settings before letting end users use the system. This procedure must be performed on each of the computers you want to use as Slave computers.

1 **Start the DVR Utility Software, and log in using user level ID4 (see P14).**

Log in as an administrative user so that you have access to the Initial Set menu.

2 **Open the [Options] window from the Initial Set menu, and configure initial settings as needed (see P73).**

Set [PC TYPE] to “**SLAVE**”, and enter the IP address of the Master computer.

Configure the display language and other options as needed.

3 **Log out of the system (see P14).**

Now the Slave computer has its initial settings configured so that the end users can use it.

You can connect up to seven Slave computers to the network.

Disabling the Firewall Protection

When Windows XP Firewall or some other firewall program is active on your computer, the computer is blocked from communicating with the DVRs and thus the system fails to operate correctly. This means that you must disable the firewall protection before you begin using the DVR Utility Software.

Note that, if you are using Windows XP SP2, its firewall protection is enabled by default. When you run the DVR Utility Software for the first time, Windows XP SP2 displays a window where you can choose firewall options; select [Unblock] so that your computer is not blocked from receiving traffic from the DVRs.

Windows Security Alert
To help protect your computer, Windows Firewall has blocked some features of this program.
Do you want to keep blocking this program?
Name: VA-SW8000
Publisher: SANYO Electric Co., Ltd.
Keep Blocking
Unblock
Ask Me Later
Windows Firewall has blocked this program from accepting connections from the Internet or a network. If you recognize the program or trust the publisher, you can unblock it. When should I unblock a program?

Menus and User Access Levels

The system uses four access levels to authorize users. Users are authenticated with passwords at login time. Menu items accessible to a user are determined by the user level assigned to that user.

A user with access level ID4 can access the [User ID] window from the Initial Set menu and change the passwords and IDs for all users.

User level				ID1 (Monitoring user)	ID2 (Playback user)	ID3 (Recording user)	ID4 (Administrative user)
User name (default)				ID1	ID2	ID3	ID4
Password (default)				1111	2222	3333	4444
Menu items and functions	Monitor live video			○	○	○	○
	Playback				○	○	○
	Search	Date/Time Search			○	○	○
		Alarm Search			○	○	○
	Save	Save/print snapshot images			(○)	(○)	○
		Download			(○)	(○)	○
		Play back downloaded files			○	○	○
	Record	Manual recording				○	○
		Timer recording				○	○
	DVR management	DVR configuration, firmware update, etc.					○
	Tool*	Timer download (scheduled download)			(○)	(○)	○
		Broadcast	Manual recording, timer recording			○	○
			Menu upload, clock setting, system update				○
		Tamper detection			○	○	○
	Initial Set	System Preferences, Register User ID					○
		Register DVR, Tree Edit					◎

◎ : This menu item is only accessible from the Master computer.

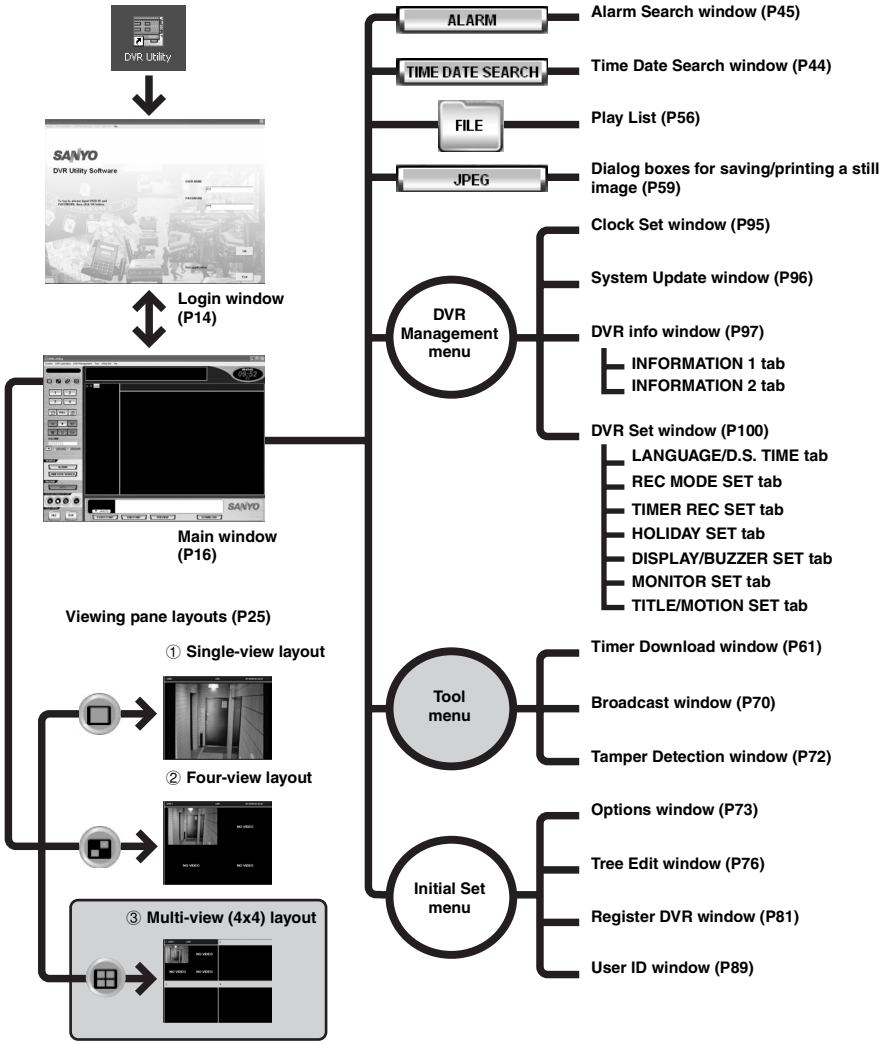
* : The Tool menu is not available with VA-SW8000LITE.

( ): Access to these menu items can be configured by a user with access level ID4 through the Initial Set - [Options] window.

Throughout this guide, user access levels are indicated in page titles or somewhere else when referring to menu items or functions that require specific user access levels. For example, "(User access level: ID3/4)" means that the menu item or function is only available to users with access level ID 3 or 4.

Window Navigation

When you have started the software and logged into the system, you are first presented with the main window. The main window is where you watch video during routine monitoring work and, in addition, it allows you to navigate to other windows where you can control or configure various aspects of the system.



- **Some windows are only available to users with specific user access levels.**
- **If you are using VA-SW8000LITE, you cannot access the multi-view layout or Tool menu.**

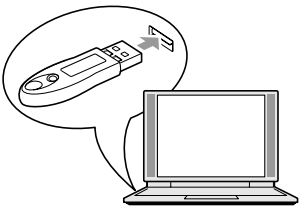
Starting and Ending a Monitoring Session

To start a monitoring session with the system, you have to start the DVR Utility Software and log into the system. Follow these steps:

■ Starting the Software

1 **Plug in the hardware key.**

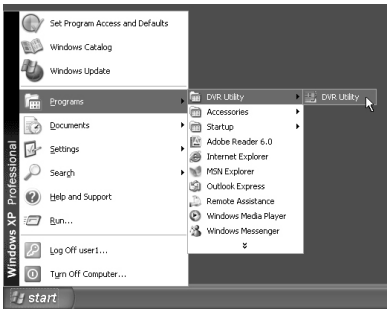
The hardware key (supplied in the Standard Edition package) must be plugged into a USB port of your computer.



2 **Double-click the DVR Utility shortcut icon on the desktop.**

Alternatively, click Windows Start button, point to [Programs], point to the [DVR Utility] group, and then click [DVR Utility].

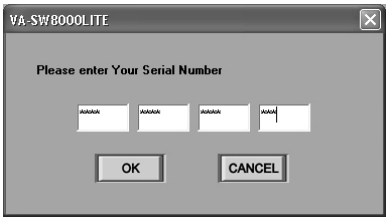
The Login window appears.



Starting the software without the hardware key

If you are using the Light Edition (VA-SW8000LITE), which does not include the hardware key, simply start the software.

When you have started VA-SW8000LITE, you are prompted to type in the serial number indicated on the CD-ROM disc label. Type in the correct number, and the Login window appears.

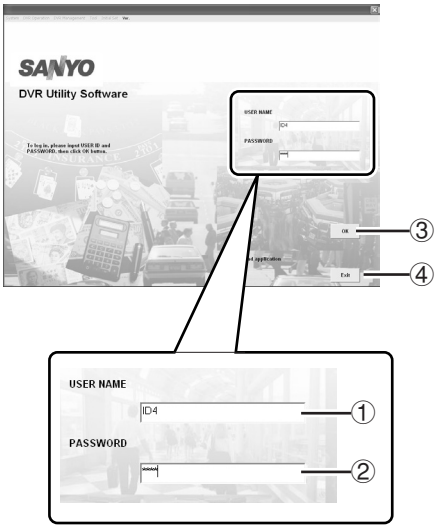


- **The dialog box that prompts you to type in the serial number appears once and only once when you start the software for the first time.**
- **If the serial number dialog box appears when you are starting the Standard Edition (VA-SW8000), it means that the hardware key is not correctly plugged in. If this is the case, make sure that the hardware key is in place, and try again to start the software.**

■ Logging Into the System

When the software has successfully started up, you are presented with the Login window. Enter your user name (①) and password (②), then click OK (③) or hit the [Enter] key.

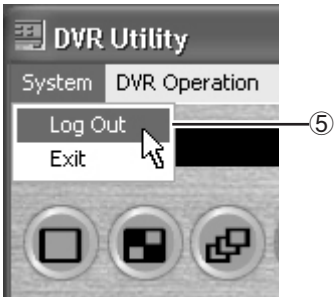
If your entered user name and password are valid, the main window appears.



If you fail to enter valid user name and password three times in succession, an authentication error window appears. In this case, close the window and try again to start the software.

■ Logging Out of the System

To log out, open the [System] pull-down menu from the menu bar, and then click [Log Out] (⑤). The currently displayed window is closed, and you are returned to the Login window.



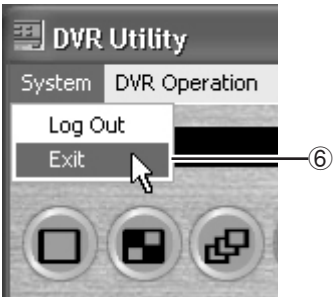
■ Exiting from the Software

- **To exit when working with the main window:**

  Open the [System] pull-down menu and select [Exit] (⑥); or click the Close button ( ) in the upper right corner of the window.

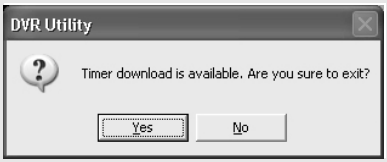
- **To exit when the Login window is displayed:**

  Click EXIT (④) at the bottom of the screen.



To configure additional user names and passwords in addition to the defaults, use the [User ID] screen, which is accessible from the Initial Set menu. For more information, see P89.

- **When a timer download is scheduled but not yet started or while a timer download is ongoing, a confirmation dialog is displayed if you try to log out of the system (or exit from the software). If you choose to log out or exit, the timer download is canceled. For more information, see P67.**

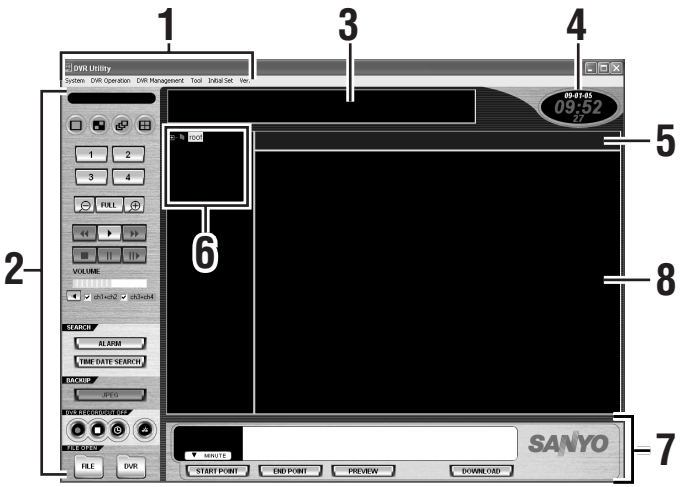


- **Except for situations where the software does not respond to keyboard or mouse actions, the above procedure must be followed whenever you exit from the DVR Utility Software; otherwise, an unexpected problem may result.**

Main Window Elements and Their Functions

When you have logged into the system, you are first presented with the main window. The main window is where you monitor live video and perform “basic monitoring-user level operations” such as recording and playback, and allows you to navigate to other windows where you can control or configure various aspects of the system.

■ Window Elements



1 **Menu bar (see P17)**

Contains pull-down menus that provide access to various commands available in the DVR Utility Software.

2 **Control panel (see P19)**

Contains buttons that provide access to the most common commands.

3 **Message window**

Displays information on operation status, results, and alarm as well as error messages.

4 **Current date and time**

Indicates the current date and time from the computer's internal clock in the format configured on Windows.

5 **Title bar (see P29)**

Displays basic information on the currently displayed video, including the camera (DVR) titles and operating modes.

6 **Tree list (see P23)**

Displays the titles of registered cameras and groups as a tree list. When designating cameras or groups for various operations, click titles from this list.

7 **Time scale panel (see P21)**

Allows you to specify the time range of video data you want to download. (Normally, the time scale indicates the date and time of the currently displayed video.)

8 **Viewing pane (see P25)**

The viewing pane normally displays live or recorded video. When you perform a non-monitoring operation or configuration task, the appropriate information is displayed in this area.

Due to limited space, lettering in the message window and title bar may be partially abbreviated. In such cases, move the cursor to the abbreviated area to complementarily display the invisible part.

■ Menu Bar

The menu bar located along the top of the window contains six pull-down menus. When you click one of the menus, you are presented with a list of commands you can use to perform various tasks such as switching the viewing pane layouts or configuring system settings.

Select...	To...	Required user access level
① **System**		
• **Log Out**	Log out of the system and return to the Login window.	(ID1/2/3/4)
• **Exit**	Exit from the DVR Utility Software and close all its windows.	(ID1/2/3/4)
②**DVR Operation**		
• **DVR List(*)**	Show or hide the tree list.	(ID1/2/3/4)
• **Connect DVR**	Monitor a video camera.	(ID1/2/3/4)
• **Disconnect DVR(*)**	Stop displaying the video streamed from a DVR (camera).	(ID1/2/3/4)
• **Open File(*)**	Open a file (display the [Play List] window).	(ID2/3/4)
• **Display(*)**	Specify the viewing pane layout and channel set. (Multi Monitor/Single Monitor/Ch1/Ch2/Ch3/Ch4/ Quad Monitor/Sequence/Full Screen)	(ID1/2/3/4)
• **Zoom In(*)**	Zoom in on the currently displayed image.	(ID1/2/3/4)
• **Zoom Out(*)**	Zoom out on the currently displayed image until it reverts to the original size.	(ID1/2/3/4)
• **Live(*)**	Stop playback and switch to live mode.	(ID2/3/4)
• **Play(*)**	Start playback.	(ID2/3/4)
• **Still(*)**	Pause the playback to display the current video frame as a still image.	(ID2/3/4)
• **Frame(*)**	Frame-step the playback.	(ID2/3/4)
• **Slow(*)**	Slow-play the video at one of three variable speed levels. (x1/2, x1/4, and x1/8)	(ID2/3/4)
• **Forward(*)**	Fast-forward playback at one of five variable speed levels. (x2, x7.5, x15, x30, and x180)	(ID2/3/4)
• **Reverse(*)**	Fast-reverse playback at one of five variable speed levels. (–x2, –x7.5, –x15, –x30, and –x180)	(ID2/3/4)
• **Alarm Search(*)**	Navigate to the [Alarm Search] window.	(ID2/3/4)
• **Download(*)**	Navigate to the [Download] window.	(ID2/3/4)
• **Save as JPEG(*)**	Navigate to the window for saving the snapshot (still image) as a JPEG file.	(ID2/3/4)
• **Print(*)**	Navigate to the window for printing the snapshot (still image).	(ID2/3/4)
• **REC Start(*)**	Start manual recording.	(ID3/4)
• **REC Stop(*)**	Stop manual recording.	(ID3/4)
• **Timer(*)**	Turn on or off the timer recording mode.	(ID3/4)
• **Audio(*)**	Configure the audio output channels. (Ch1+Ch2, Ch3+Ch4)	(ID1/2/3/4)
• **Audio Mute(*)**	Turn on or off the sound output.	(ID1/2/3/4)

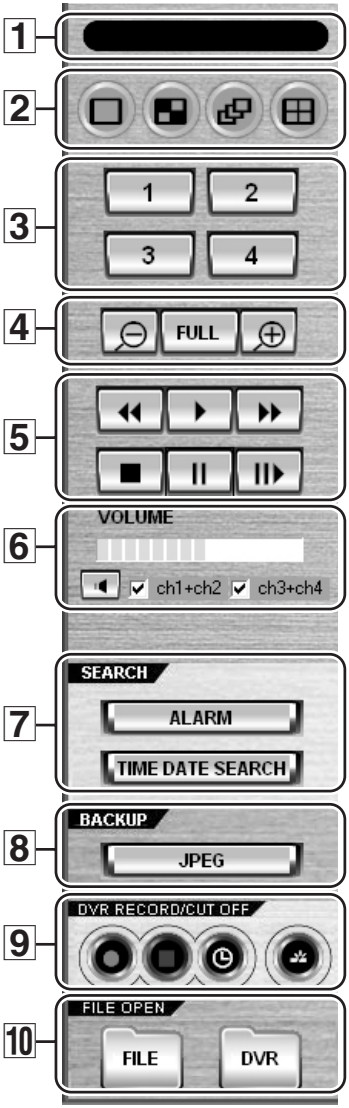
Main Window Elements and Their Functions

Select...	To...	Required user access level
③ **DVR Management**		
• **Clock Set**	Navigate to the [Clock Set] window.	(ID4)
• **System Update**	Navigate to the [System Update] window.	(ID4)
• **DVR Info**	Navigate to the [DVR Info] window.	(ID4)
• **DVR Set**	Navigate to the [DVR Set] window.	(ID4)
④ **Tool**		
• **Timer Download**	Navigate to the [Timer Download] window.	(ID2/3/4)
• **Broadcast**	Navigate to the [Broadcast] window.	(ID3/4)
• **Tamper Detection**	Navigate to the [Tamper Detection] window.	(ID2/3/4)
⑤ **Initial Set**		
• **Options**	Navigate to the [Options] window.	(ID4)
• **Tree Edit**	Navigate to the [Tree Edit] window.	(ID4)
• **Register DVR**	Navigate to the [Register DVR] window.	(ID4)
• **User ID**	Navigate to the [User ID] window.	(ID4)
⑥ **Ver.**		
• **Web Page**	Go to the relevant Web page.	(ID1/2/3/4)
• **About...**	Displays the version of the software currently in use.	(ID1/2/3/4)

- **Commands marked with an asterisk (*) are accessible from the Control Panel as well (see P19).**
- **Commands available to a logged-in user are determined by the access level assigned to that user.**
  The "Required user access level" column indicates the user access level(s) required to use the function.
- **ID2 and ID3 access to Download, Timer Download, Save as JPEG, and Print menu items can be controlled using the [Options] screen under the Initial Set menu. For more information, see P73.**

■ Control Panel

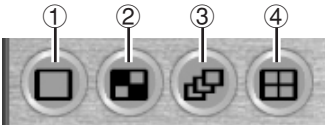
The control panel contains buttons that provide one-click access to the most common functions such as specifying the channel configuration, switching the viewing pane layouts, playing back or recording video as well as to various control/configuration windows.



1 Operating mode indicator for timer download

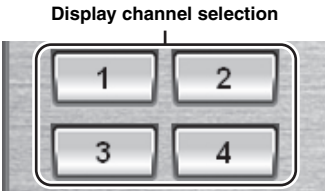
- **Program:** There is a scheduled timer download that has not been started yet.
- **Downloading:** A timer download is ongoing.

2 Layout selector buttons (ID1/2/3/4)

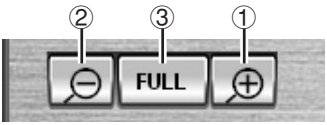


① Single-view layout
② Four-view layout
③ Sequence (auto switch) mode
④ Multi-view (4x4) layout

3 Channel selector buttons (ID1/2/3/4)

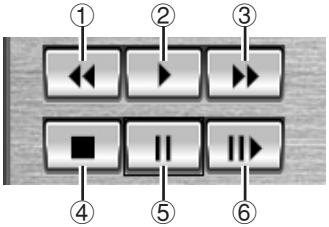


4 Zoom/scale buttons (ID1/2/3/4)



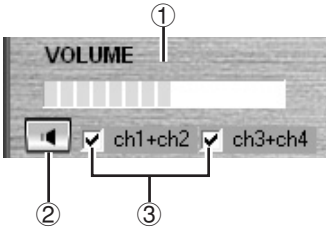
① Zoom in on the currently displayed image
② Zoom out on the currently displayed image until it reverts to the original size.
③ Full screen mode

5 Playback control buttons (ID2/3/4)



① Fast-reverse playback
② Play
③ Fast-forward playback
④ Stop (switch to live mode)
⑤ Pause
⑥ Slow-play

6 Sound playback panel (ID1/2/3/4)

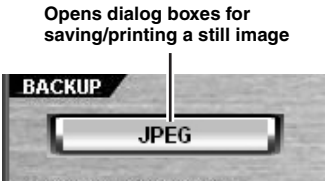


① Sound volume
② Turn on/off sound output
③ Configuration of the sound output channel

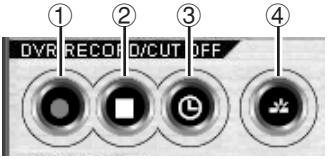
7 Search buttons

① Navigate to the [Alarm Search] window
② Navigate to the [Time Date Search] window

8 Save button (ID2/3/4)

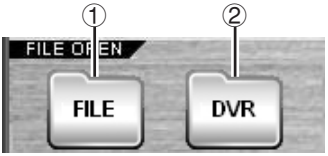


9 Record/cut-off buttons



① Start manual recording (ID3/4)
② Stop manual recording (ID3/4)
③ Turn on or off the timer recording mode. (ID3/4)
④ Disconnect the DVR. (ID1/2/3/4)

10 List display buttons



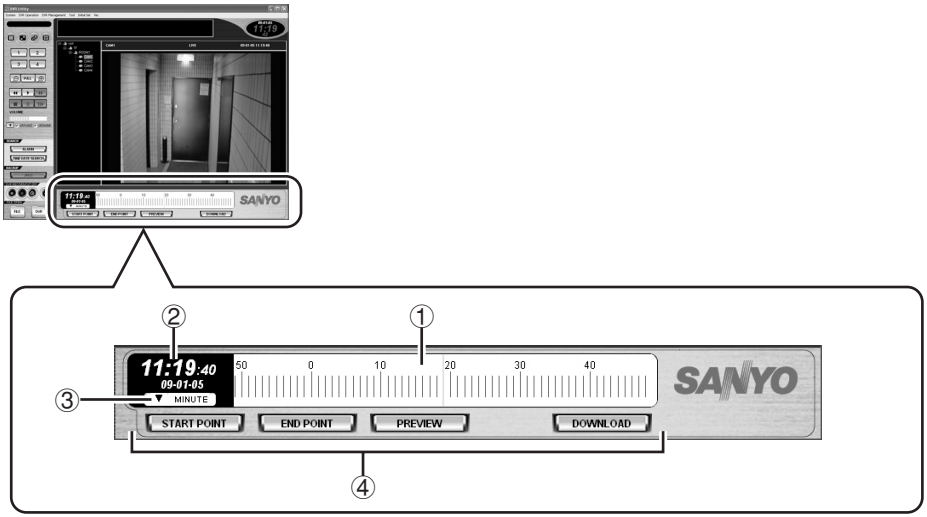
① Open a playlist (play back downloaded files) (ID2/3/4)
② Show/hide the tree list (ID1/2/3/4)

- **The functions assigned to the control panel buttons are all available from the menu bar as well; however, for simplicity, the procedures contained in this guide assume the use of the control panel buttons.**
- **Commands available to a logged-in user are determined by the access level assigned to that user. The text in parentheses indicates the user access level(s) required to use the function.**

■ Time Scale Panel

The time scale panel, which contains a movable time scale and control buttons, allows you to specify the time range of the video data you want to download. Also, the time scale panel is useful when you explore video frame images in playback mode: you can easily move the playback point by dragging the time scale.

When a user with user access level ID1 is logged on, the timer scale panel functionality is restricted to the display of date and time.



① **Time scale**

The time scale indicates the date and time of the currently displayed video.

- **In live mode:** Current date and time
- **In playback mode:** Date and time of recording

② **Time display**

Indicates the digits of the date and time (time stamp) of the currently displayed video.

③ **Scale unit**

Indicates the currently selected time scale unit.

④ **Control buttons**

- **START POINT:**

  Sets the download start point.
- **END POINT:**

  Sets the download end point.
- **PREVIEW:**

  Plays back to preview the video data within the download range.
- **DOWNLOAD:**

  Navigate to the [Download] window.

How the Time Scale Works

The time scale is a tool that allows you to view or specify time and date information. The scale part is movable; it automatically slides as the video advances. The date and time of live or recorded video is always displayed in the middle of the scale, where a green vertical center line resides.

- The scale unit (DAY/HOUR/MINUTE) can be selected from the pull-down menu.

  The scale display range varies depending on the selected unit.

  DAY:

  Center line ±15 days (30 graduations in all)

  HOUR:

  Center line ±12 hours (24 graduations in all)

  MINUTE:

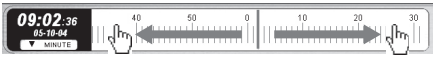
  Center line ±30 minutes (60 graduations in all)

- The time and date that corresponds to the vertical center line on the scale is shown on the digital time display on the left-hand side of the scale.
- In live mode, the scale indicates the current date and time.
- In playback mode, the scale indicates the date and time (time stamp) when the currently displayed video was recorded. The time and date information reflects fast-forward playback or other operations.
- The scale moves in increments of one graduation.
  For example, when the scale unit is set to “MINUTE”, the scale slides every one minute.
- When the scale spans two days or two months, the day or month is highlighted in red.

How to Use the Time Scale

In playback mode, you can move the playback point along the scale by dragging the scale to the left or right.

- You can advance the time by sliding the scale to the left, or reverse the time by sliding the scale to the right.



Advances the time. **Reverses the time.**

- This feature is very useful when you explore video frame images in playback mode: you can move the playback point as many times as you like by dragging the scale. (The playback point can be moved even when the video is paused.)
- Instead of dragging the scale, you can double-click a graduation on the scale to move the playback point to that position.
- The time scale can be used in live mode as well. When you specify a point in time on the scale by dragging the scale or double-clicking a graduation, the DVR Utility Software switches to playback mode on condition that there is recorded video data that corresponds to the specified point in time.
- When you download recorded video data, you can specify the start and end points of the time range of video data you want to download, by dragging the scale just as you do when you specify the playback point. For more information, see P49.

■ Tree List

When you monitor or record live video or perform a related configuration task, you can specify the camera or group you want to connect and operate by selecting from the tree list.

- The tree uses camera titles, group titles, and hierarchical tree nodes as defined on the [Tree Edit] window accessible from the Initial Set menu. For more information, see P76.
- The tree list is hierarchical: lower level tree nodes can be opened and closed by clicking the ⊞/⊟ buttons on the left.
- The [DVR] button the control panel can be used to show or hide the tree list.

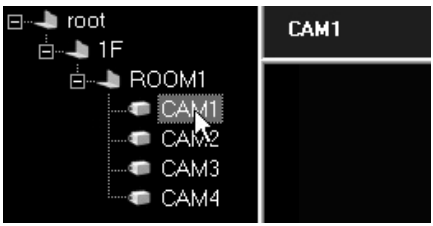
When there is one or more video streams displayed on the viewing pane, the camera with a blue title bar is the target of an operation.

Specifying the Target of the Command (by a Single-Click)

☞To select a camera as the target:

To select a camera, click the camera title node on the tree list. The clicked title is highlighted to indicate that it is currently selected.

When you run a command by clicking a control panel button or menu item after selecting a camera, that command is applied to the selected camera.



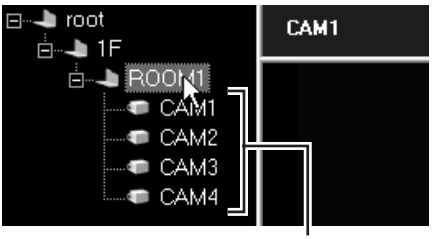
When connected to 4-channel DVRs, four cameras can be displayed per DVR.

If using commands such as record and playback that are applicable to individual DVRs, executing the command to just one of the four cameras will cause the other three to automatically follow suit.

☞To select a group as the target:

Clicking a group name will cause all the cameras belonging to that group to be selected.

When designating a group for execution of a command, right-click the group name to display the context menu, and select the command from the menu. Four tasks, i.e. "Expand/Collapse", "Live", "Play" and "Tree Edit" are possible (see P24).



Clicking a group name will cause all the cameras belonging to that group to be selected.

By designating the group and selecting either “Live” or “Play” from the context menu, videos will be automatically displayed in the multi-view layout.

If the number of cameras in a group exceeds the number of panes in the multi-view layout, videos will only be displayed from the top four cameras on the list.

Directly Running a Command (by a Double-Click)

Some of the windows accessible from the menu bar allow you to directly run a command by double-clicking a camera title.

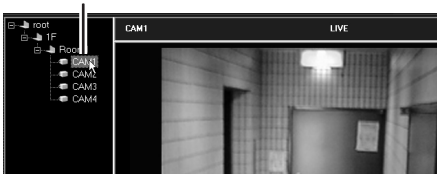
- In live mode, when you double-click a camera title, the software switches to the DVR to which the camera is connected, and displays the live video from the camera.

If the cameras are connected to an identical DVR, use the channel selector buttons to switch the live video as desired.

- In the [DVR Set] window and [DVR Info] window, both accessible from the DVR Management menu, double-clicking a camera title causes the software to retrieve the information on the DVR to which the camera is connected (thus providing a function similar to [Import]).
  Similarly, when you double-click a camera title in the [Alarm Search] window, the software retrieves the alarm list information.

When you double-click a camera title when working in one of the mentioned windows, the software displays a confirmation dialog before it actually retrieves the DVR or alarm information. Respond to the confirmation dialog by clicking the appropriate button.

Double-click

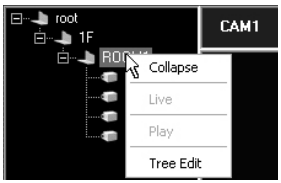


Working with the Context Menu

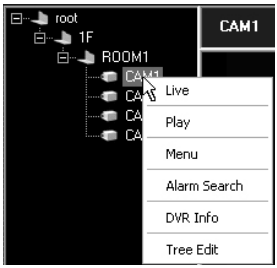
The context menu appears when you right-click a camera title or group name. From the context menu, you can directly run the following commands without having to click a control panel button or open a menu from the menu bar:

- **Expand/Collapse:**
  Provides the same function as the ⊞ ⊟ buttons.
- **Live:**
  Displays live video in the single-view layout when a camera is selected; or
  Displays live video in the multi-view layout when a group is selected.
- **Play:**
  Plays back recorded video in the single-view layout when a camera is selected; or
  Plays back recorded video in the multi-view layout when a group is selected.
- **Menu:** Opens the [DVR Set] window
- **Alarm Search:** Opens the [Alarm Search] window
- **DVR Info:** Opens the [DVR Info] window
- **Tree Edit:** Opens the [Tree Edit] window

When "Menu", "Alarm Search" and "DVR Info" are selected, the DVR configuration information and alarm event log are automatically loaded when switching the screen.



When a group name is right-clicked



When a camera title is right-clicked

■ Viewing Pane Layouts

The viewing pane is where you view live or played back video. It can be switched among three layouts: single-view, four-view, and multi-view (4x4). You can switch among these layouts at any time by clicking a control panel button or directly clicking the viewing pane.

● Single-view layout (one camera at a time)

The single-view layout provides a single view that displays the video stream from only one camera at a time. You can select one of the cameras connected to a DVR by specifying the corresponding channel number.

The viewing pane defaults to this layout when you have logged into the system.

● Four-view layout (one DVR at a time)

The four-view layout provides four views that can display up to 4 video streams from a single DVR.

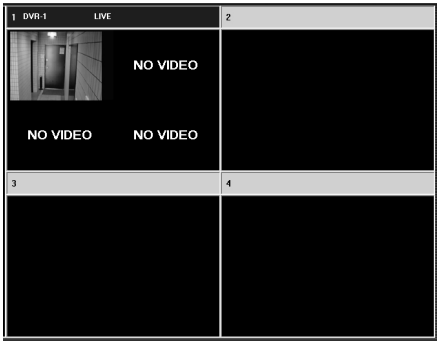
When you are connected to a 4-channel DVR, you can watch the video streams from all the four cameras connected to the DVR's channels 1 to 4.

When you are connected to a single-channel DVR, this layout behaves the same way as the single-view layout.

● Multi-view (4x4) layout (multiple DVRs at the same time)

Live videos from a maximum of four DVRs can be displayed in each of four sub-panes. Even if cameras are connected to a single-channel DVR, videos can be simultaneously viewed from four cameras (as in a four-view layout) if the multi-view layout is used.

Moreover, by allocating the videos from a 4-channel DVR, a maximum of 16 sub-panes (4-channels x 4 sub-panes) can be viewed.



If you are using VA-SW8000LITE, you cannot access the multi-view layout.

Whichever layout you use, no video stream is displayed and a black placeholder with a specific message appears instead, in the following situations:

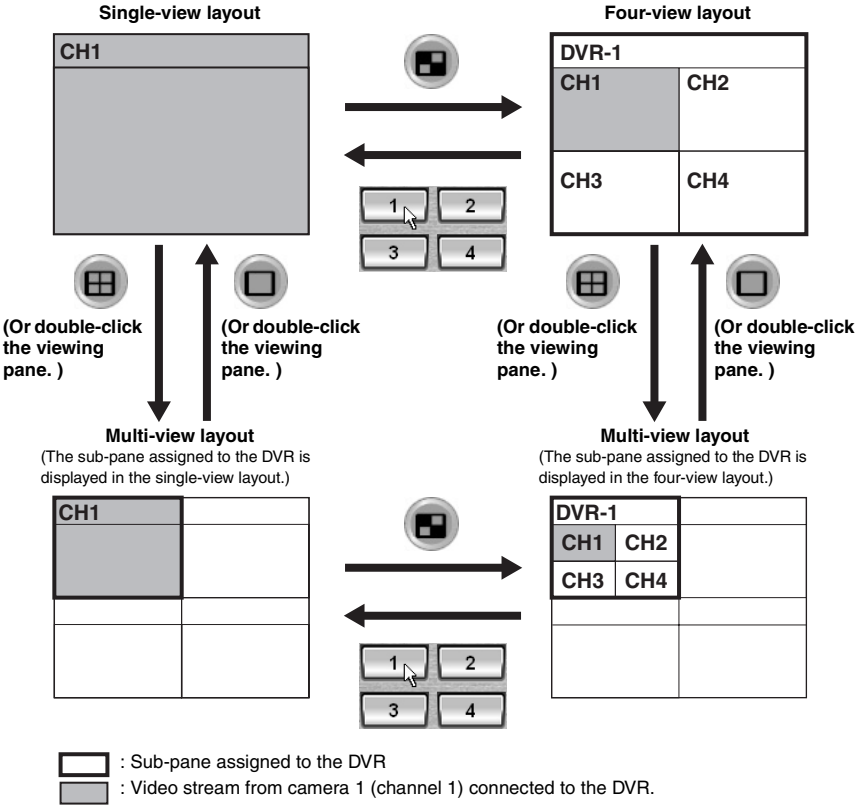
- **The specified channels carries no input signal:**
  "VIDEO LOSS"
- **The video is masked:**
  "MASK"
- **No camera is connected:**
  "NO VIDEO"

(These messages do not appear when you are connected to a single-channel DVR.)

Switching the Viewing pane Layouts

You can switch the viewing pane layouts at any time by clicking a control panel button or double-clicking the viewing pane.

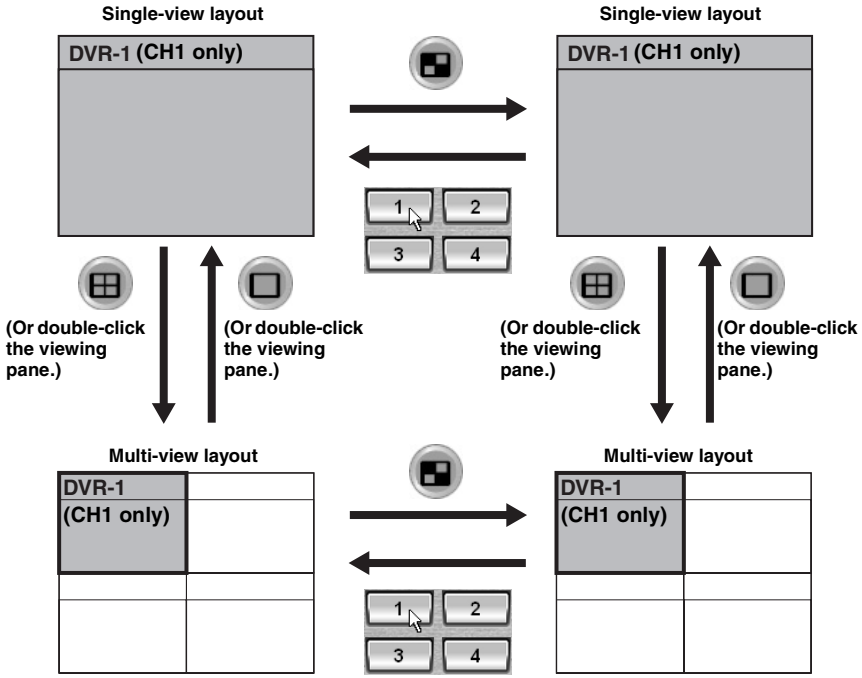
● **When you are connected to a 4-channel DVR**



Alternatively, you can select [Display] from the [DVR Operation] menu.

● When you are connected to a single-channel DVR

You can switch the layouts basically the same way as when connected to a 4-channel model; however, only the single-view and multi-view layouts are actually available because, when you try to display the four-view layout for a single-channel DVR, the single-view layout is displayed instead.

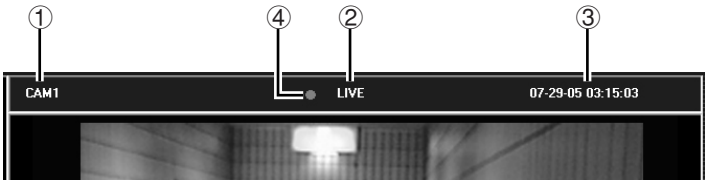


Alternatively, you can select [Display] from the [DVR Operation] menu.

Main Window Elements and Their Functions

■ Title Bar

In live and playback modes, a title bar is placed above each video stream. The title bar provides real-time information that assists in monitoring work in addition to basic information on the currently displayed video.



● Information on the displayed video

The title bar indicates the following basic information on the currently displayed video stream:

① Camera title

The camera title is displayed in the single-view layout but it is replaced with the DVR name in the four-view layout and when the DVR is assigned a four-view sub-pane in the multi-view layouts.

② Video/operating mode

- **LIVE:** Live video from the currently monitored camera
- **PLAY:** Standard playback of recorded video
- **STILL:** Still image of the paused video

The PLAY indicator is followed by the playback speed when you change the playback speed. (Example: PLAY x 2)

③ Date and time of the video (time stamp)

- **In live mode:** Current date and time
- **In playback mode:** Date and time of recording

● Recording status information (④)

The recording status of the connected DVR is indicated in the middle of the title bar.

- **● (red):**

  Manual recording or timer recording is in progress.
- **◷ (red):**

  Timer recording is active. (i.e., timer recording is either scheduled or ongoing)

● Alarm status

The title bar changes its color to indicate the alarm status.

- **Red:**

  An alarm condition has occurred with the currently monitored camera (DVR).
- **Yellow:**

  The currently played back video contains an alarm condition.

● Activating One of the Sub-panes in the Multi-view Layout

In the multi-view layout, you can select (activate) one of the four sub-panes by clicking its title bar; then you can assign a video stream to the pane or apply a recording or playback operation.

The title bar, when clicked, changes in color to indicate it is active.

- **Gray:** Not selected.
- **Blue:** Selected.

When alarm video is displayed and you select sub-pane, its title bar changes its foreground (text) color as follows:

- **If you select a live video sub-pane (with a red title bar):**

  Its text (foreground) changes from black to red.
- **If you select a played back video sub-pane (with a yellow title bar):**

  Its text (foreground) changes from black to green.

Watching Live Video

This section guides you through the basic steps for watching the live video stream from a monitored camera, and gives description on useful display features.

■ Basic Procedures

When you begin routine monitoring work, you should follow these basic steps:

● Log into the system, and switch to live mode

On the tree list, **double-click the camera title** of the camera you want to monitor.

The video stream from your specified camera is displayed in the single-view layout, and the title bar indicates the camera title and video mode (LIVE) as well as the current date and time.

Double-click

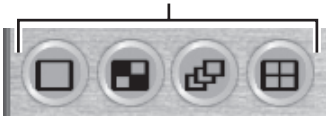
In this example, live video is displayed in the single-view layout.

● Switch the viewing pane layouts as needed

Click one of the **layout selector buttons** on the control panel.

The single-view layout is initially displayed when you turn on live mode, but you can switch to the four-view or multi-view layout as you like.

Layout selector buttons



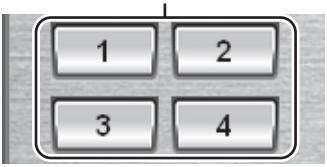
: Single-view layout
: Four-view layout
: Sequence (auto switch) mode
: Multi-view layout

● Switching the Video Channels

Click one of the **channel selector buttons** on the control panel.

When you are connected to a 4-channel DVR, the video stream from the camera that corresponds to your specified channel is displayed in the single-view layout irrespective of the layout you have so far been in.

Channel selector buttons



You can switch the channels only when the camera is connected to a 4-channel DVR.

● Switch to the Video from Another DVR

On the tree list, **double-click the camera title** of the camera you want to monitor. The connected DVR is switched to and live video from the designated camera is displayed.

● Displaying Video in Each Sub-pane in the Multi-view Layout

Assign video streams from the cameras (DVRs) to be shown in each sub-pane of the multi-view layout by the following procedure.

You can concurrently monitor four cameras even if your specified cameras are each connected to a single-channel DVR.

1 **Click on the control panel.**

The viewing pane switches to the multi-view layout.

2 **Select one of the four sub-panes by clicking its title bar.**

The selected title bar turns blue.

3 **On the tree list, double-click the camera title of the camera you want to monitor.**

The sub-pane displays the live video from your selected camera.

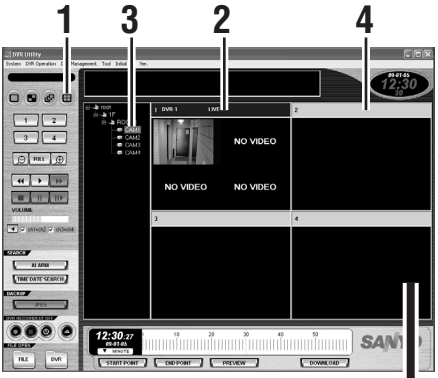
4 **Assign video streams to the remaining sub-panes.**

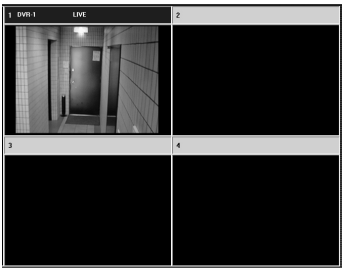
By repeating steps 2 and 3 above, you can assign video streams to up to 4 sub-panes.

When connected to a 4-channel DVR, after selecting the sub-pane by clicking the title bar, a single-view layout can be switched to a four-view layout by conducting one of the following operations.

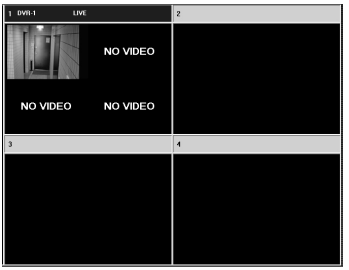
- Clicking on the control panel.
- Selecting [DVR Operation] → [Display] → [Quad Monitor] on the menu bar.
- Designating the group on the tree list and selecting “Live” from the context menu.

The same camera video streams or video streams from cameras connected to the same DVR cannot be simultaneously allocated to multiple sub-panes.





Multi-view layout for a single-channel DVR



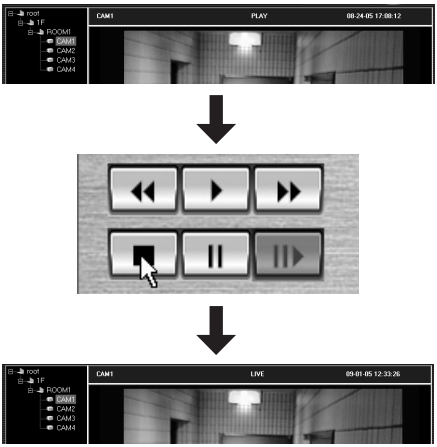
Multi-view layout for a 4-channel DVR

The screen can display up to 16 sub-panes (4-channels x 4 sub-panes).

● Switching from Playback Mode to Live Mode

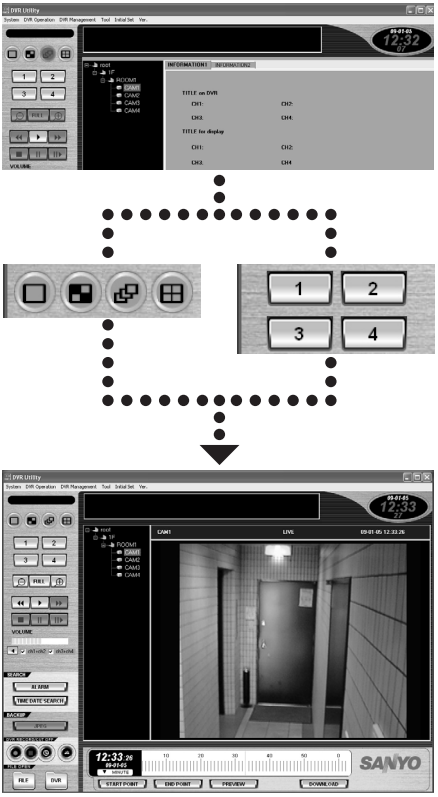
Click the **Stop Playback button** (■) on the control panel.

The viewing pane switches to the live video from the camera that has been selected during playback.



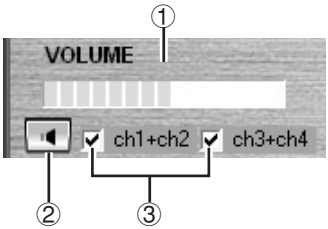
● Switching from a Sub Window to Live Mode

When you are working in a sub window accessible from the Initial Set, DVR Management, Tool, or another menu, you can switch to live mode by clicking a **layout selector button** or a **channel selector button** on the control panel.



● How to Listen to the Sound Part in the Video

Use the **sound playback panel** on the control panel. (When in the multi-view layout, specify the sub-pane for which you want to listen to the sound by clicking its title bar.)



① **Sound volume**

Drag the control to the left or right to adjust the sound volume.

② **Turn on/off sound output**

Click to toggle between (ON) and (OFF).

③ **Output channel selector**

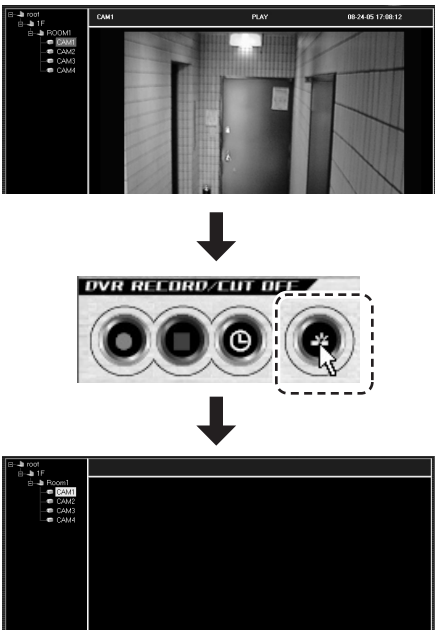
When you are connected to a 4-channel DVR, specify the set of channels for which you want to listen to the voice by selecting the appropriate check box.

- **If a channel is feeding a masked video stream, no sound is outputted whichever sound output setting is selected.**
- **To listen to the sound part in the video, go to the REC MODE SET tab of the [DVR Set] window and turn on [AUDIO RECORDING]. Note that an error is generated if your computer has no sound card installed.**

● How to Turn Off the Currently Displayed Video

Click the **Cut-Off button** ( ) on the control panel. This turns off the display of video streams, and black placeholders appear in place of the video streams.

When you perform this action, you are disconnected from the DVR in use; therefore, the video is turned off for all the cameras connected to that DVR.



To turn on the video again, double-click the camera title on the tree list.

About DVR Reconnect Feature

If the live video stream from a camera is disconnected or otherwise disturbed for some reason, hold down the [Shift] key and double-click the camera title on the tree list. On the confirmation dialog box that appears, click [Yes] to reconnect to the DVR.

■ Zoom Mode

When you switch to zoom mode, the displayed video can be enlarged centering on a specified point on the view.

This feature works in playback mode as well.

1 **Click (①) on the control panel.**

The button turns red to indicate that you are now in zoom-in mode.

2 **Click the center point for zoom-in.**

Point to and click on the desired point on the view; each time you click the same center point, the displayed video enlarges incrementally.

The zoom factor depends on the current layout.

- **When you are viewing the video from a single-channel or 4-channle DVR in the four-view layout:**

  Original size → x2 → x4 → x8 → x12

- **When you are viewing the video from a 4-channel DVR in the single-view layout:**

  Original size → x2 → x4 → x6

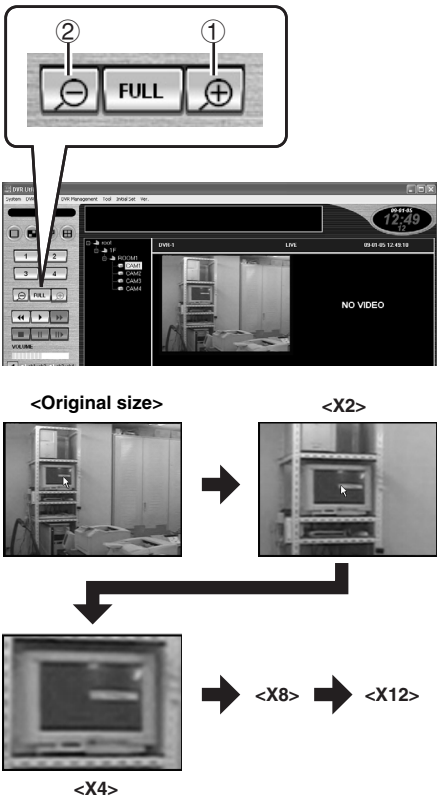
3 **To zoom out on the video after zoom-in:**

Click (②) on the control panel. The button turns red to indicate that you are in zoom-out mode.
Each time you click the button, the displayed video is scaled down incrementally until it reverts to the original size.

If the specified channel is masked, you cannot use the zoom feature.

4 **To revert to the original size:**

Click one of the layout selector buttons ( ) or channel selector buttons on the control panel. Then the viewing pane switches to your selected layout with the zoom factor reset to the original size.



■ Full Screen Mode

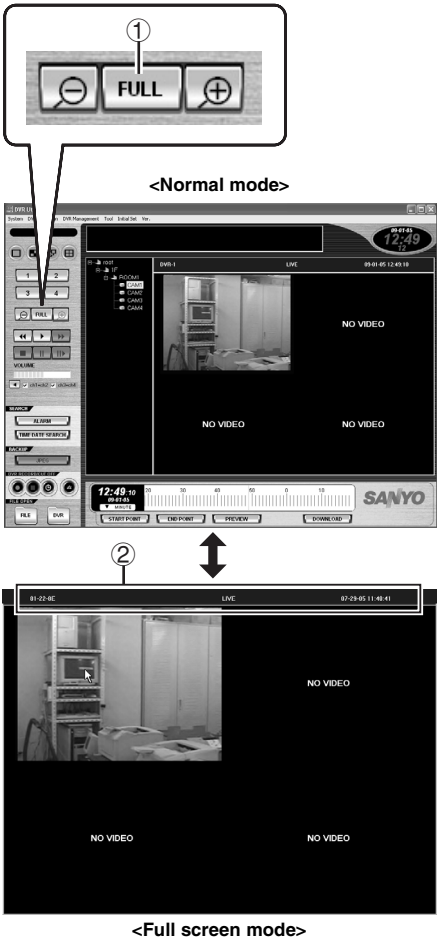
When you switch to Full Screen mode, the currently displayed video is maximized to cover the whole screen with all other user-interface elements, including the menu bar, control panel, and tree list, hidden from the screen.

This feature works in playback mode as well.

● To switch to Full Screen mode

You can view the video from the currently selected channel in Full Screen mode by clicking FULL (①) on the control panel or pressing [Ctrl] + [F].

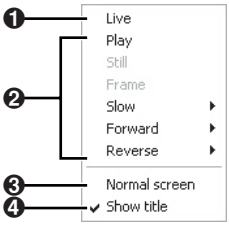
In the single-view layout, if a black screen with a message saying "VIDEO LOSS", "MASK" or "NO VIDEO" appears, the full screen mode cannot be switched to.



<Full screen mode>

● Full Screen Operations

Right-clicking on the full screen displays the context menu, in which the following operations can be made:



❶ Displaying live video stream
❷ Playing back
❸ Returning to normal mode
❹ Switching between show/hide of the title bar (②)

Pressing [Ctrl] + [F] in the full screen mode will also return to the normal mode.

● How to Enlarge the Displayed Video

By left-clicking on the part of the video you want to enlarge, the video image will be incrementally enlarged with every click.

■ Sequential Switching Mode

When you are connected to a 4-channel DVR, you can use Sequential Switching mode to monitor in turn each of the cameras connected to the four channels.

- **This feature is only available when you are connected to a 4-channel DVR.**
- **You cannot use Sequential Switching mode when you are connected to a single-channel DVR.**

1 **View the live video as usual.**

Select the desired camera from the tree list, and watch the live video from the DVR in the single-view or four-view layout.

2 **Click (one of the layout selector buttons on the control panel).**

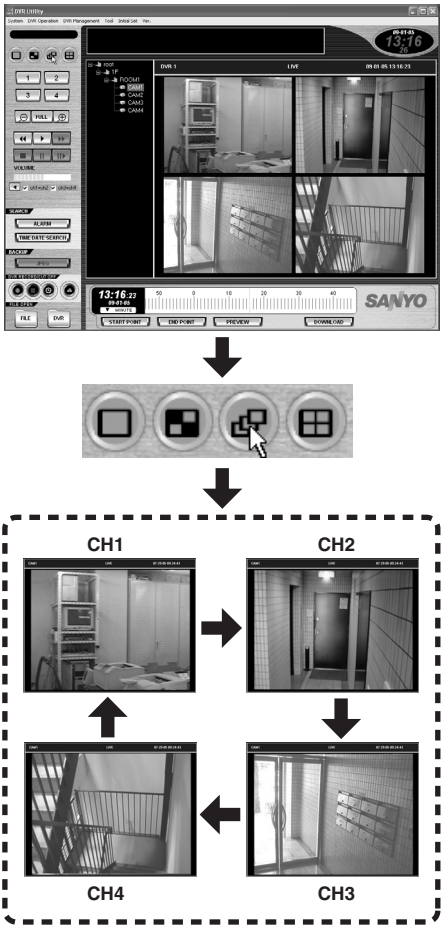
The software switches to Sequential Switching mode; it cycles through the cameras according to the numbers of the channels they are connected to, and displays in a single view the video stream from each camera one after another. This behavior loops until you exit from Sequential Switching mode.

To configure the length of intervals at which the cameras are switched, use the [Options] window under the Initial Set menu. For more information, see P73.

When there is a channel with a "VIDEO LOSS" placeholder, it is displayed as it is; however, when there is a channel with a "MASK" or "NO VIDEO" placeholder, it is skipped and not displayed.

3 **To exit from Sequential Switching mode:**

Click again to exit from Sequential Switching mode. You are returned to the layout you were working in before switching to Sequential Switching mode.



Recording Monitored Video

Live video streamed from a monitored camera can be recorded into the DVR's internal hard disk.

- You can choose from three recording modes: manual, timer, and alarm.
- The recording mechanism works on the entire DVR. Because of this, when you are connected to a 4-channel DVR, the video streams from all the four cameras are recorded at the same time, even if you specify the camera title of one camera.
- To record the sound part in the video as well, go to the REC MODE SET tab of the [DVR Set] window and turn on [AUDIO RECORDING]. For more information, see P106.
- **When you attempt to start manual or timer recording by clicking the corresponding button, you are presented with a confirmation dialog. Confirm whether or not to start recording. This dialog is intended to prevent you from inadvertently recording an unwanted video stream.**

■ Manual recording (required user access level: ID3/4)

You can manually record live video from monitored cameras.

● Basic Operating Steps

1 **Display live video.**

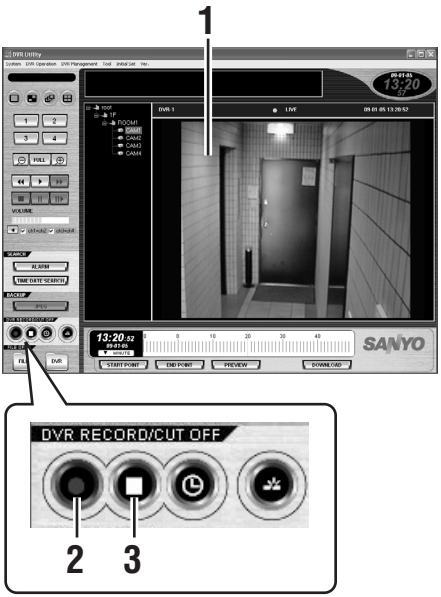
When in the multi-view layout, specify the sub-pane that is displaying the video you want to record by clicking its title bar.

2 **Click ⏺ on the control panel.**

A ● symbol appears on the title bar, and the DVR starts recording the live video. Whichever layout is currently applied to the viewing pane, video streams are recorded from all the cameras connected to the DVR.

3 **To stop recording, click ⏹ on the control panel.**

The ● symbol disappears from the title bar, and the DVR stops recording.



You can manually record live video in Sequential Switching mode.

You cannot start manual recording while the DVR is on timer standby or during timer recording.

Recording Monitored Video

● Recording Video from Multiple DVRs Concurrently

Display the live video streams from multiple DVRs you want to record, and repeat the basic operating steps (P37).

Once the DVRs start recording live video, they continue the recording process even if they are disconnected from the DVR Utility Software and their video streams are not displayed in the viewing pane. Therefore, you can proceed with the recording process with any number of DVRs.

To stop the recording for a DVR, display the live video from that DVR, and then stop the recording.

● Live Video Recording Without Viewing It

When you use manual recording mode to record live video, you can also control the recording without displaying the live video on the viewing pane. Simply select your desired camera from the tree list and click the appropriate control button to make the DVR start or stop recording the live video. This can also be done from within windows accessible from the [DVR Management] and [Tool] menus.

The broadcast feature allows you to instruct all the DVRs simultaneously to start or stop recording. For more information, see P70.

■ Timer recording (required user access level: ID3/4)

Timer recording allows you to schedule the automatic recording of live video.

1 **Set up the timer.**

It is prerequisite that a user with user access level ID4 should configure the timer operating conditions using the TIMER REC SET tab of the [DVR Set] window. For more information, see P110.

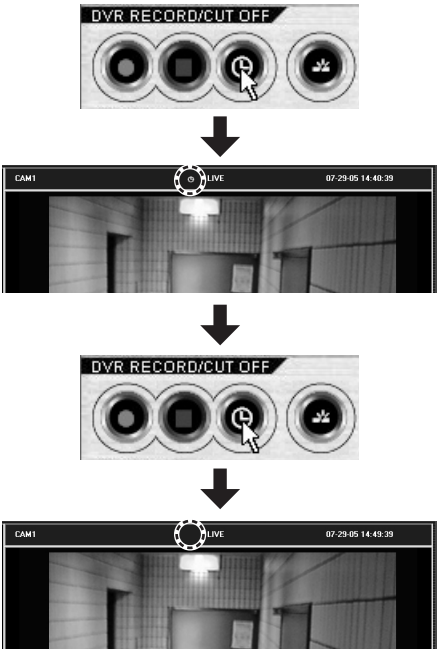
2 **Click (timer button) on the control panel.**

The timer is activated and the live video will be automatically recorded at the scheduled time.

A ◷ symbol is displayed in the title bar when timer recording is on standby.

When timer recording starts, a ● symbol appears next to the symbol mentioned above.

If the [ALARM MODE] is set to "OLY AL-REC ON TMR" on the REC MODE SET tab of the [DVR Set] screen, alarm recording is automatically triggered when the timer-scheduled time is reached, so you do not have to click the timer button.



3 **To cancel timer recording:**

You can cancel scheduled or ongoing timer recording by clicking again on the control panel.

The ◷ and ● symbols disappear and timer recording is canceled.

The broadcast feature allows you to simultaneously turn all the DVRs on or off according to the timer mechanism. For more information, see P70.

- **After you have finished manual or timer recording, you must wait for up to 10 seconds to start a new recording session.**
- **After you have changed the DVR's [PICTURE QUALITY] or [AUDIO RECORDING] setting, you must wait for up to 6 seconds to start a new manual or timer recording session.**

■ Alarm Recording (Required user access level: ID4)

Alarm recording is a feature that automatically records live video when an alarm condition such as an intrusion has been detected.

The alarm detection works in response to the signal inputs from a motion sensor built into a camera or an external device (such as a door switch or infrared sensor).

☞To activate alarm recording:

It is prerequisite that a user with user access level ID4 should configure the trigger condition for alarm recording on the REC MODE SET and TITLE MOTION SET tabs of the [DVR Set] window.

The system automatically starts recording when an alarm condition is detected, and stops recording when a predefined time period elapses. This requires no user intervention.

Ⓐ **ALARM MODE: (see P108)**

Enables/disables alarm recording.

Ⓑ **ALARM DURATION: (see 109)**

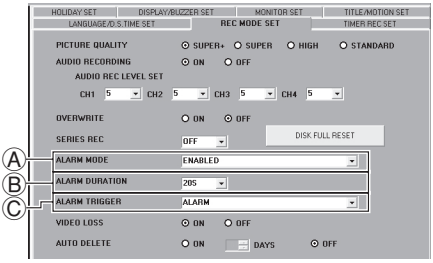
Determines how long recording should continue when an alarm condition is detected.

Ⓒ **ALARM TRIGGER: (see 109)**

Set the trigger condition for alarm recording.

Ⓓ **MOTION SENSOR: (see P118)**

Sets the alarm detection condition that should be applied to the camera's internal motion sensor.



Example of settings on REC MODE SET tab

☞To view alarm-recorded video:

You can play back an alarm-recorded video file the same way as an ordinary recorded video file. In addition, you can use the search feature to specify an alarm event and view the alarm-recorded video associated with the event. For more information, see P45.

Immediately after alarm recording has started or immediately after you have changed DVR's [PICTURE QUALITY] or [AUDIO RECORDING] setting, the alarm recording mechanism is subject to the following restrictions:

- **For up to 4 seconds, it does not accept any alarm input.**
- **For up to 6 seconds, it does not start recording in response to an alarm input.**

Playing Back Recorded Video

(Required user access level: ID2/3/4)

You can play back recorded video by specifying the source camera (DVR).

Playback does not affect the DVR's recording operations (timer and alarm).

■ Switching to Playback Mode

When you are in live mode and click (one of playback control buttons), the DVR that is currently streaming video to the viewing pane is switched to playback mode.

☞All layouts support playback

All of the viewing pane layouts (single-view, four-view, and multi-view) support playback; you can switch to playback mode whichever layout you are currently using. Also, you can switch the layouts during playback.

- **When in the multi-view layout, specify the sub-pane connected to the DVR you want to switch to playback mode by clicking its title bar.**
- **By designating a group and selecting the "Play" command on the context menu, the multi-view layout is automatically switched to.**

☞Playback supports all recording modes

The playback mechanism supports all recording modes (manual, timer, and alarm). It searches for all recorded video files and plays back the video files in chronological order.

When an alarm-recorded video file is being played back, the title bar is displayed with a red foreground on a yellow background.

☞Where playback starts

When you play back recorded video files for the first time, playback starts at the first video file. From the second time onward, however, playback resumes at the point where you ended playback.

Once you have quit the DVR Utility Software, playback starts at the first video file.

☞Operating mode indicator

During playback, the title bar indicates the operating mode and playback speed.

- **PLAY:** Video is being played back at the original speed. If you change the playback speed, this indicator is followed by the playback speed.

  Example: PLAYx2
- **STILL:** Playback is currently paused and a snapshot (still image) is displayed.

The playback speed indicated is an approximate value, and it does not accurately represent the actual speed.

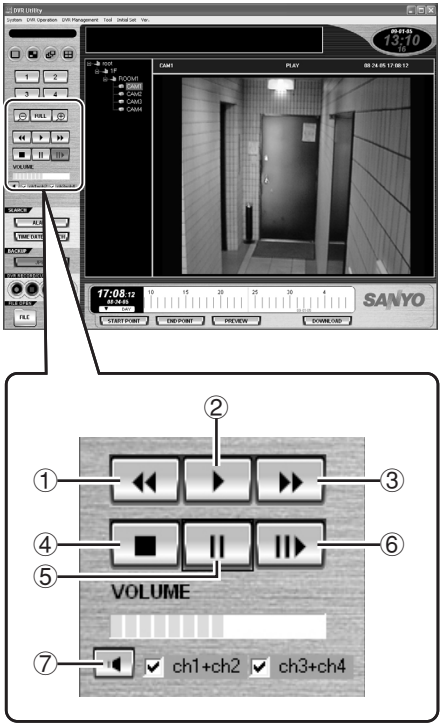
■ Returning to Live Video

When you are in playback mode and click (one of playback control buttons), the camera (DVR) that is currently playing back the video is switched to live mode.

■ Working in Playback Mode

To control playback, use the control buttons on the main window.

- In playback mode, you can move the playback point by dragging the scale on the time scale panel, besides using the playback control buttons.
- Alternatively, you can use the playback control commands under the [DVR Operation] menu.



When you want to listen to any sound contained in video, be sure to start playback at the file that contains the sound. If the file at the playback start point has no sound recorded, the sound recorded in any subsequent files may not be played back.

- **To start playback:**
  Click ▶ (②).
- **To fast-forward or fast-reverse the playback:**
  Click ▶▶ (③)/ ◀◀ (①) during playback. Each time you click one of these buttons, the playback speed increases incrementally.
  (Speed increments: x2, x7.5, x15, x30, x180)
- **To make a snapshot (still image):**
  Click ❚❚ (⑤) during playback.
  You can resume normal playback by clicking ▶ (②).
- **To slow the playback:**
  When you pause playback and click ❚▶ (⑥), the playback resumes at a x1/8 slow speed. Each time you click ▶▶ (③), the playback speed increases incrementally; as you repeat clicking the button, the playback returns to the original speed, and then switches to fast-forward mode.
  (Speed increments: x1/8, x1/4, x1/2)
- **To frame-step the playback:**
  You can frame-step the playback by pausing the playback and repeatedly clicking ❚❚ (⑤).
- **To stop the playback:**
  Click ■ (④) to stop the playback and return to live mode.
- **To play back sound:**
  You can turn on or off the sound output by clicking 🔊 (⑦) on the sound playback panel. In playback mode, you can use the sound playback panel the same way as when you are in live mode. For more information, see P33.

Searching for Recorded Video

(Required user access level: ID2/3/4)

You can search for video files recorded in a DVR and play back them.

■ Search Modes

You can choose from the following three search modes:

Search Mode		Recording mode			Description	Referenced page
		Manual recording	Timer recording	Alarm recording		
TIME/DATE SEARCH		○	○	○	Searches for, and plays back, video files that match your specified date and time.	44
ALARM SEARCH	ALARM LIST SEARCH	×	×	○	Searches for alarm events and displays an alarm list that lets you locate alarm events of interest and play back the video files associated with them.	46
	ALARM THUMBNAIL SEARCH	×	×	○	Searches for alarm events and displays a thumbnail view of alarm-recorded video files, from which you can pick any video files and play them back.	47

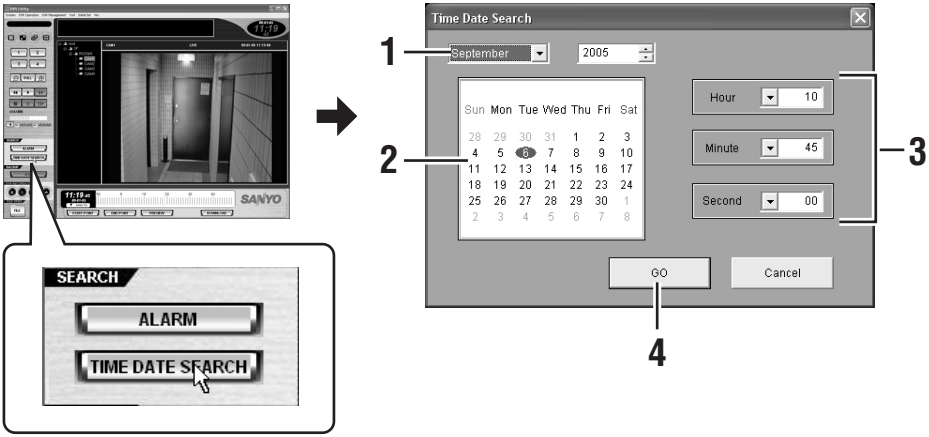
○: Supported ×: Not supported

- **You must have user access level ID2 or higher to search for recorded video.**
- **If the search results include any masked video files, they are not displayed on any of the preview panes, thumbnail views, or playback panes, and black placeholders with a "MASK" message appear instead.**

■ TIME/DATE SEARCH

In this search mode, you can search for, and play back, video files that match your specified **date and time** criteria. This mode supports all recorded video files (all recording modes).

To use this search mode, display the live or playback video from the camera (DVR) you want to search for recorded video (or select your desired camera from the tree list on the main window), and click the [TIME DATE SEARCH] button on the control panel. Then the [Time Date Search] window appears:



1 **Specify the month/year to which your desired date belongs.**

You are presented with a calendar for your specified month/year.

2 **Specify the desired date.**

Click a date on the calendar. Your specified date turns blue.

3 **Specify the desired time.**

Specify the “hours”, “minutes”, and “seconds” parts of the time by selecting the appropriate number from each drop-down list.

4 **Click** GO **.**

The software starts playing back the video file(s) that matches your specified date and time criteria. In this mode, you can use the same playback controls as in playback mode.

If there is no match to your criteria, the software plays back the video file newer than and closest to the specified date and time.

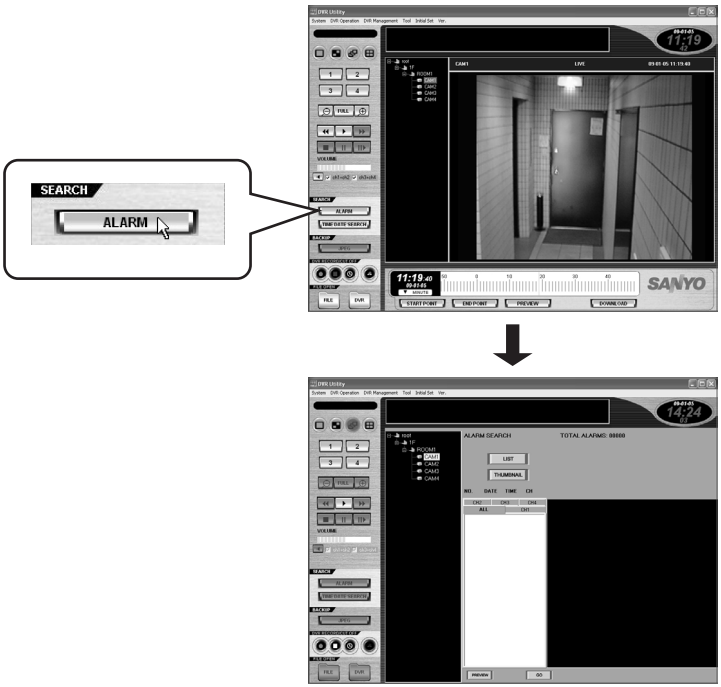
- By default, the date and time as of your clicking the [TIME DATE SEARCH] button (or for played back video, the date and time included in the displayed video) is indicated on the [Time Date Search] window.
- To cancel the search and playback and close the [Time Date Search] window, click [Cancel] without clicking [GO].

■ ALARM SEARCH

The alarm search feature searches for alarm events, and displays the search results in the [Alarm Search] window as either an **alarm list** or **thumbnail view**, allowing you to select an alarm event and play back the associated video file(s).

To use this search mode, click the [ALARM] button on the control panel to navigate to the [Alarm Search] window.

To switch between the alarm list and thumbnail view, use the [LIST] and [THUMBNAIL] buttons provided on this window.



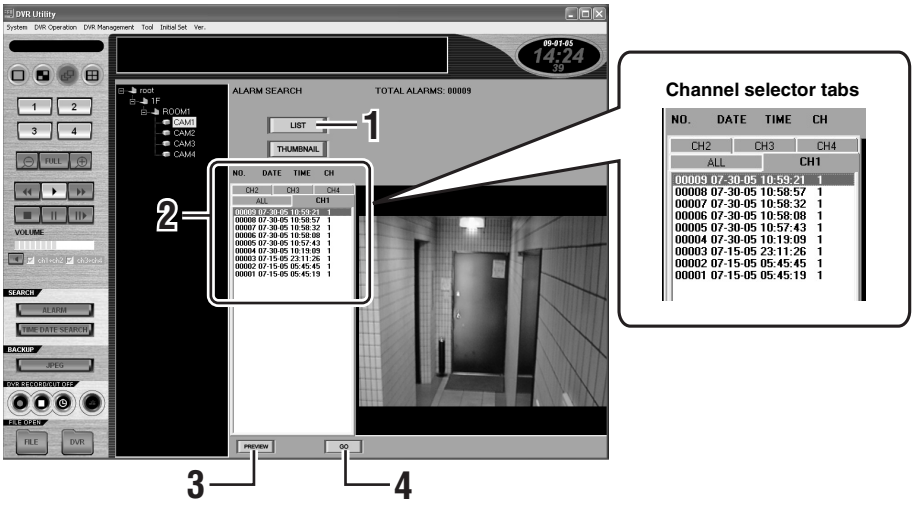
The number of alarm event log entries that can be retained on a single hard disk is limited as follows:

Once the upper limit has been reached, alarm event log entries are added to and deleted from the hard disk on a first-in first-out basis, and deleted entries no longer appear on the alarm list or thumbnail view.

- **DSR-M810/814: Max. 49,999 entries**
- **DSR-M804/800: Max. 19,999 entries**

You can also access the [Alarm Search] window by selecting the [Alarm Search] option on the context menu of the tree list. In this case, even if the [LIST] button is not clicked, the DVR alarm event log is automatically loaded and displayed on the alarm list.

Using the Alarm List to Check and Play Back the Search Results (ALARM LIST SEARCH)



1 **Click** LIST **.**

The alarm list displays, in the reverse-chronological order, alarm events that correspond to the channel currently selected on the tree list.

2 **On the alarm list, click the alarm event whose associated video you want to play back.**

The selected alarm event turns blue.

3 **To preview the video associated with the alarm event, click** PREVIEW **.**

The first frame of the video is displayed as a still image on the preview pane. You can use the same procedure (steps 2 and 3 above) to preview the video files associated with other alarm events.

(You can proceed without previewing the video files associated with events.)

4 **Once you have located the video of interest, click** GO **.**

You are brought to the main window, and your specified video file is played back. In this mode, you can use the same playback controls as in playback mode.

☞To switch the channels displayed on the list:

When you are connected to a 4-channel DVR, you can switch the channels displayed on the list and preview pane by selecting one of the tabs.

- **ALL:**

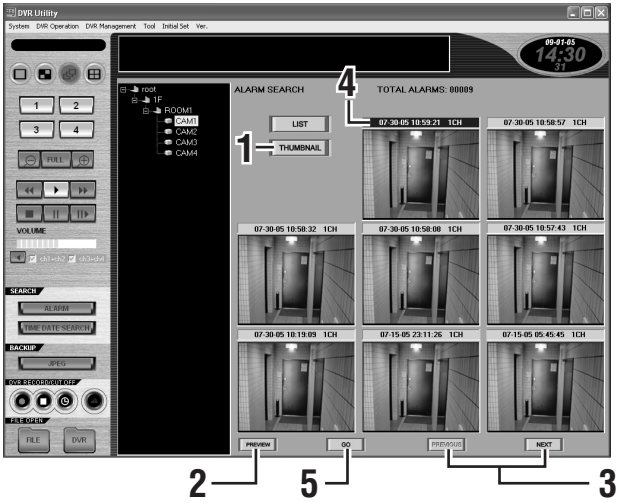
  When you select the ALL tab, the alarm list displays the alarm events from all the four channels, and the preview pane displays the images for all the four channels in a four-view layout.
- **CH1 to CH4:**

  When you select one of the CH1 to CH4 tabs, the alarm list displays only the alarm events from the selected channel, and the preview pane displays the image for the selected channel in a single-view layout.

☞To change the camera:

To change the camera (DVR) you want to search for alarms, select a new camera on the tree list and click LIST ; or double-click the camera title of a new camera on the tree list and respond to the confirmation dialog that is displayed.

Using the Thumbnail View to Check and Play Back the Search Results (ALARM THUMBNAIL SEARCH)



1 **Click THUMBNAIL.**

The Alarm Search window automatically switches to the layout for alarm thumbnail search.
Initially, the thumbnails in the thumbnail view are blank with their title bars indicating the time/date and channel number information only.

2 **Click PREVIEW.**

The software retrieves all alarm video files from your specified DVR, and displays their first-frame images in the thumbnail view in the reverse-chronological order.

3 **To page up or down the thumbnail view:**

A single page of the thumbnail view contains eight thumbnails. You can display the previous or next page of the thumbnail view by clicking PREVIOUS or NEXT.

4 **Click the thumbnail image whose associated video you want to play back.**

The selected title bar is highlighted.

5 **Click GO.**

You are brought to the main window, and your selected video is played back in a single-view layout. In this mode, you can use the same playback controls as in playback mode.

☞**To change the camera:**

To change the camera (DVR) you want to search for alarms, select a new camera on the tree list and click THUMBNAIL; or double-click the camera title of a new camera on the tree list and respond to the confirmation dialog that is displayed.

Downloading Recorded Video

Video files recorded in DVRs can be downloaded to computers.

- When you download recorded video, you define the download range by specifying its start and end points.
- You can download all the video files included within your specified download range; this feature supports all recording modes (manual, timer, and alarm).
- The download mechanism works on the entire DVR. Because of this, when you are connected to a 4-channel DVR, the video files originating from all the four cameras are downloaded concurrently, even if you specify the camera title of one camera.

In the default configuration, the lowest user access level authorized to access the download mechanism is ID2; however, you can use the [Options] window under the Initial Set menu to raise the lowest required access level so that users with user access levels ID2 and ID3 cannot access the download mechanism. For more information, see P73.

■ Downloading Procedures

First specify the download range on the main window. Then switch to the download window to proceed with the download process. The download window allows you to choose from two download modes: individual and batch.

<Main window>

Specifying the video download range

Define the download range by using the time scale panel and specifying the start and end points of the range.

<Download window>

Individual download mode

You can specify a video file and download it individually after configuring and reviewing the download settings.

Batch download mode

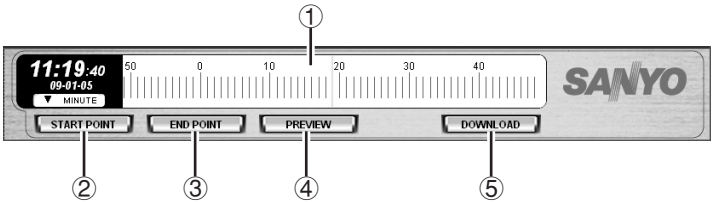
You can add video files to the download list so that you can later batch-download them.

If you want to automate the download process based on timer settings, use the Timer Download feature accessible from the [Tool] menu. For more information, see P61.

Downloading Recorded Video

■ Specifying the Video Download Range

Before you download recorded video, you must define the download range by using the time scale panel on the main window and specifying the start and end points of the range.
(The following procedure assumes that you set the start point first, but you can also set the end point prior to the start point.)

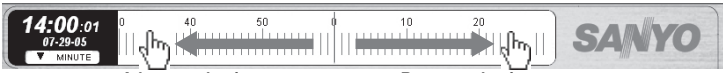


1 **Display played back video.**

Display the played back video from the camera (DVR) whose video files you want to download. The viewing pane may be in any of the single-view, four-view, and multi-view layouts; when in the multi-view layout, however, you must specify the sub-pane connected to the camera (DVR) whose video files you want to download by clicking its title bar.

2 **Drag the scale (①) to define the start point.**

When you drag the scale and release it at a position, the playback point moves to that position, and the playback continues from the new playback point. Repeatedly drag the scale until the appropriate start point is found. You can advance the time by sliding the scale to the left, or reverse the time by sliding the scale to the right.

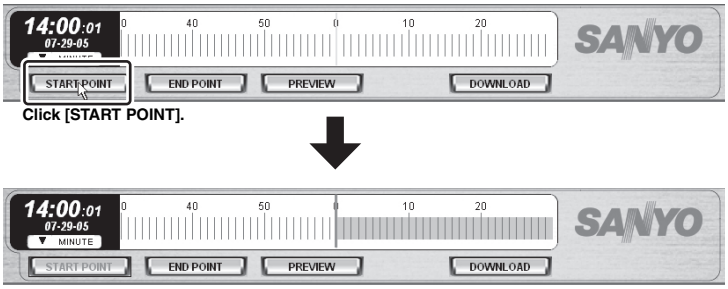


Advances the time. **Reverses the time.**

- The playback point moves in increments of the scale's graduations. Depending on your desired download range, change the scale unit (DAY/HOUR/MINUTE).
  For example, when you set the scale unit to "DAY" and drag the scale, it moves in increments of one day. Since 30 days are displayed at a time, you can advance or reverse the playback point by up to 1 month (30 days) with a single drag.
- Instead of dragging the scale, you can double-click a graduation on the time scale to move the playback point to that position.

3 **Once you have determined the start point, click [START POINT] (②).**

The download start point is established at the position where the playback point was residing when you clicked the [START POINT] button (actually, the date and time values of the time stamp displayed on the time display at that time are used as the values of the start point). Then the START POINT button turns red. A green band that indicates the download range appears on the scale. The left edge of the band is marked with a red line that identifies the start point. (To reset the start point, click [START POINT] again.)



Click [START POINT].

The start point is established, and a green band appears.

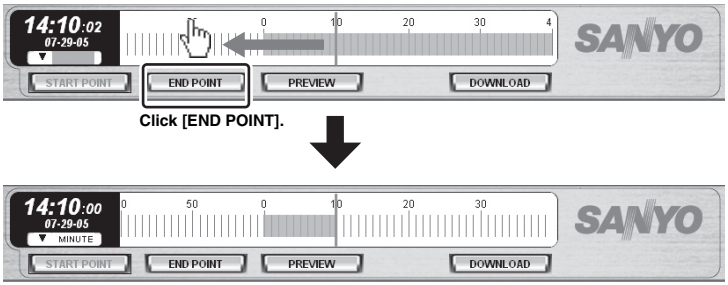
4 **Define the end point.**

Define the end point in the same procedure as the start point. Since the start point has already been determined, you can only slide the scale to the left.

5 **Once you have determined the end point, click [END POINT] (③).**

The download end point is established, and the [END POINT] button turns blue. The right edge of the band that indicates the download range is marked with a blue line that identifies the end point.
(To reset the end point, click [END POINT] again.)

Drag to the left to specify the end point.



Click [END POINT].

Downloading Recorded Video

☞To define the start and end points using the mouse:

You can also use the mouse to define the start and end points of the download range. To do so, follow these steps:

A Point to the target point with the mouse cursor.

Place the mouse cursor on a scale graduation.

B Click the right mouse button.

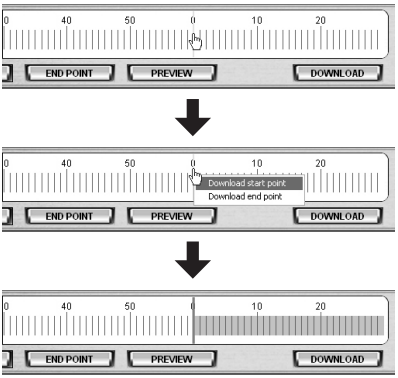
A context menu appears.

This menu contains the following options:

- Download start point
- Download end point

C Select the appropriate option depending on whether you are going to define the start or end point.

Your specified point is established as the start or end point; the button color changes as described in the previous procedure, and the band is marked at its left or right edge.



6 To preview the video included in the download range:

You can play back the video files included in the download range from the start point onward by clicking [PREVIEW] (④) on the panel.

In this mode, you can use the same playback controls as in playback mode.

7 Click [DOWNLOAD] (⑤).

You are brought to the download window.

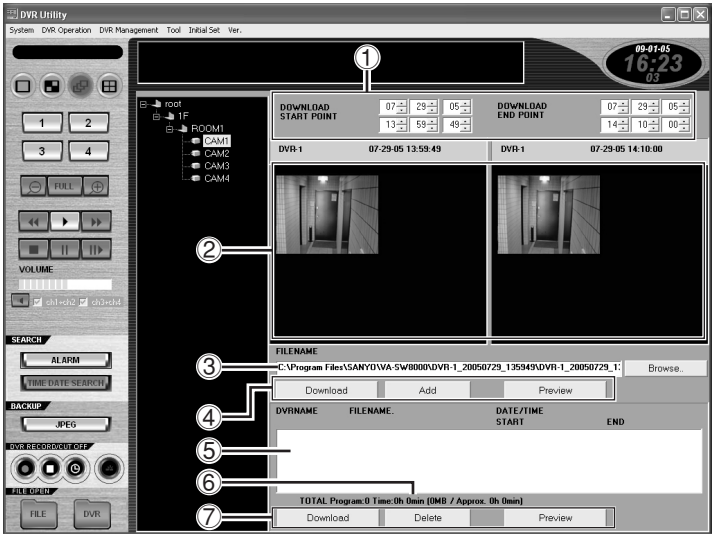
The download window lets you finally confirm the download range, specify the download destination, choose either Individual or Batch download mode, and start the download process.

Once the download window appears, the settings made on the time scale panel are transferred to the download window, and the time scale panel is initialized. This means that, when you return to the main window, the time scale appears with neither the start nor the end point defined.

<Download window>

Downloading Recorded Video

■ Using the Download Window



<Basic controls>

① DOWNLOAD START/END POINT

Displays the time stamps of the start and end points of the download range.

② PREVIEW pane

Displays the still images of the video frames that correspond to the start point (left) and end point (right) of the specified download range.

③ FILENAME

Lets you specify the folder and file name of the download destination.

④ Control buttons

- Download :

  Allows you to start downloading an individual video file immediately instead of adding them to the download list.

- Add :

  Allows you to add video files to the download list (⑤) so that you can later batch-download them.

- Preview :

  Displays the still images of the video frames that correspond to the start and end points of the specified download range in the PREVIEW pane.

<Download list and controls>

⑤ Download list

Displays the video files that will be batch-downloaded. You can add video files to this list by clicking the [Add] button.

List column headings:

DVRNAME (DVR title), FILE NAME, DATE/TIME START (start point time stamp), END (end point time stamp)

⑥ Total size indicator

Indicates the total combined size of all the files contained in the Download List.

⑦ Control buttons

- Download :

  Batch-downloads all the video files contained in the download list.

- Delete :

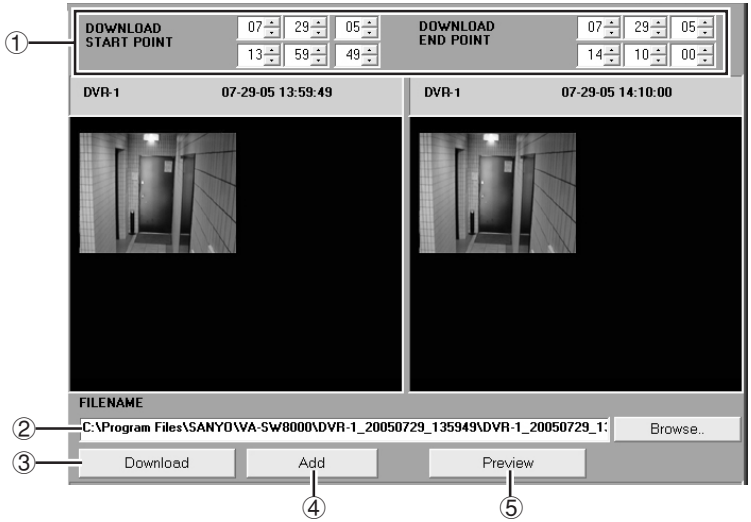
  Deletes your specified video file(s) from the download list.

- Preview :

  Displays the still images of the video frames that correspond to the start and end points of the specified video file in the PREVIEW pane.

■ Downloading an Individual Video File Using Basic Controls

When the download window is displayed, first prepare for the download process using the basic controls.



1 **Review the download range.**

By default, the download window displays the date and time settings exactly as configured on the time scale panel on the main window. To modify these settings, use the spin buttons next to the [DOWNLOAD START/END POINT] boxes (①).

To preview the still images of your modified start/end points, click Preview (⑤).

2 **Specify the folder and file name of the download destination.**

When a video file is downloaded, the folder and file name of its destination are automatically assigned as shown below, and the path name is displayed in [FILENAME] (②). You can accept this default destination unless your situation requires another location.

- **Default destination folder path:**
  C:\Program Files\SANYO\VA-SW8000\DVR-title_YYYYMMDD_HHMMSS (start point time stamp)
- **Default file name:**
  DVR-title_ YYYYMMDD_HHMMSS (start point time stamp)

If you want to change the default destination, click [Browse..], and specify new settings on the [Browse for Folder] dialog.

You cannot specify a removable drive as the destination.

Downloading Recorded Video

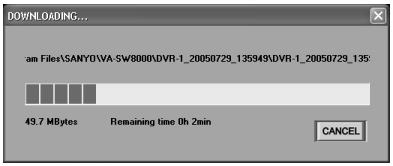
Once you are ready for download, use one of the following two options.

A Download an individual video file

If you want to specify a video file and download it immediately rather than adding it to the download list for batch-download, click Download (③).

This immediately starts the download of your specified video file.

- The progress of the download is indicated by the progress bar on the [DOWNLOADING] dialog; you can also check the how many kilobytes have already been downloaded and how long it will take to complete the download.
  (To cancel the download in progress, click [CANCEL] on the dialog.)



- When the download completes, you are returned to the window where you were working before starting the download process.

B Add video files to the download list so that they can be later batch-downloaded

If you want to add a video file to the download list rather than downloading it immediately, click Add (④).

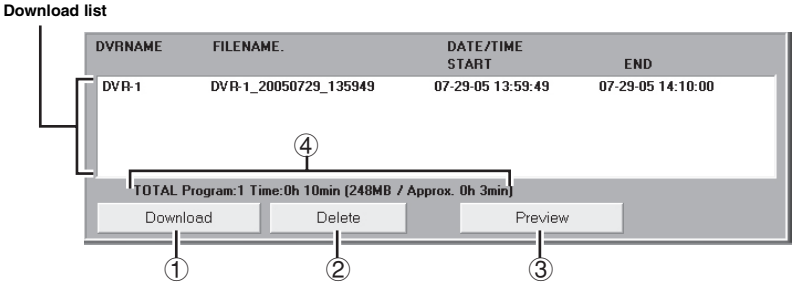
This adds the video file to the "download list". The files contained in the download list can be later batch-downloaded.
(Proceed to "Adding Video Files to the Download List for Batch Download".)

- When a video file is downloaded, two files that share the same file name but are appended with different extensions (.mp2 and .idx) are created. Because the ".idx" file is required when playing back downloaded video file and also when checking for tampering, the two files must always reside in the same folder. For more information, see P72.
- When the downloaded files are saved in a folder, a playback-dedicated application named "MP2 Viewer" is also saved. For more information, see P58, P120.

■ Adding Video Files to the Download List for Batch Download

By clicking the [Add] button among the basic controls, you can add up to 20 video files to the "download list". The files contained in the download list can be later batch-downloaded.

This section shows how you can work with the download list.



☞To remove a file from the list:

On the list, click the file you want to remove. Then click Delete (②). This removes the file from the list.

☞To preview a video file:

On the list, click the file you want to preview. Then click Preview (③). This displays the still images of the video frames that correspond to the start and end points of the specified video file in the PREVIEW pane.

☞To check the total combined size of the files contained in the list:

The total size indicator (④) below the list shows the total combined size of all the files contained in the download list.

Example: **TOTAL Program:1 Time:0h 9min (248MB / Approx. 0h 3min)**

ⓐ ⓑ ⓒ ⓓ

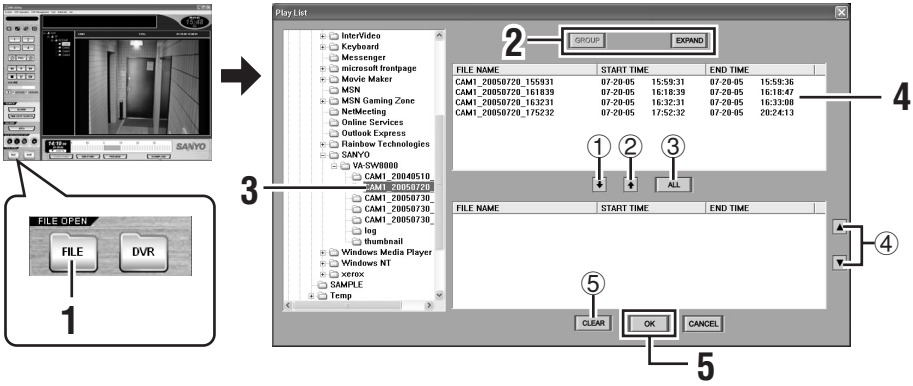
ⓐ **Number of files**
ⓑ **Playback time (in minutes)**
ⓒ **File size (in MB)**
ⓓ **Approximate time required for download (in minutes)**

☞To batch-download all the files contained in the list:

Click Download (①). This batch-downloads all the video files contained in the list. For more information on the download process, see P54.

■ Playing Back Downloaded Video Files

When you want to play back downloaded video files, specify your desired video files on the [Play List]. You can play back multiple video files in succession.



1 Click [FILE] on the control panel while you are working in the main window.

The [Play List] appears.

2 Select the file view mode.

Specify how to list split files by selecting either of the following two options.

- **GROUP (Default):**

  This option provides a simplified view by displaying only the first file in a group rather than displaying the details for all of the split files.
  (If one group contains more than 100 divided files, subgroups that contain up to 100 files are created, and the first file in each subgroup is displayed.)

- **EXPAND:**

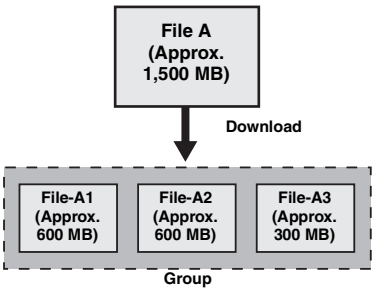
  Provides a detailed view by displaying the breakdown of all the split files in a group.

Whichever view mode you select, the play list always display entries grouped by download session.

☞What is a "group"?

If a single source video file is larger than 600MB or contains any blank portions or any video data recorded by the alarm recording mechanism, the source video file is automatically split into multiple files and saved as such while the download process is in progress.

The DVR Utility Software manages files split from the same video source file as one "group". This scheme makes it easy to play back download files because the files in a group are actually split files but can be played back as if they were a single file. File grouping occurs on a download by download basis.



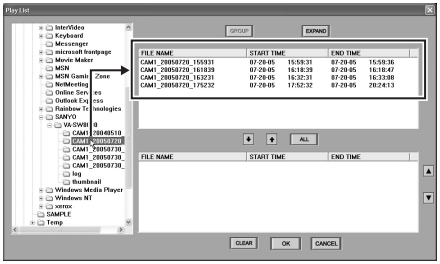
3 Choose a folder.

Click on a folder in the folder list (the left pane). The files contained in your selected folder are displayed in the available files list (the upper half of the right pane), to which your selected view mode (either GROUP or EXPAND) is applied.

List column headings:

FILE NAME, START TIME (recording start date/time), END TIME (recording end date/time)

When the view mode is "GROUP", the END TIME field shows the record end date/time for the entire group.



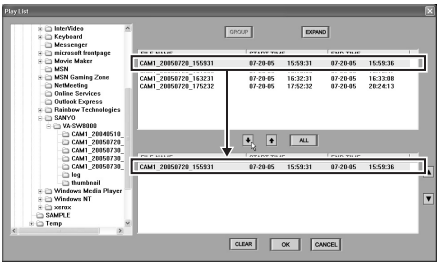
Click a particular column heading (FILE NAME, START TIME, END TIME) to rearrange the files in the available files list based on the data contained in that column. The sorting order toggles between ascending and descending each time you click the column heading.

4 Select files and add them to the play waiting list.

Files contained in the available files list (the upper half of the right pane) can be added to the play waiting list (the lower half). You can add all files or only selected files to the play waiting list as shown below:

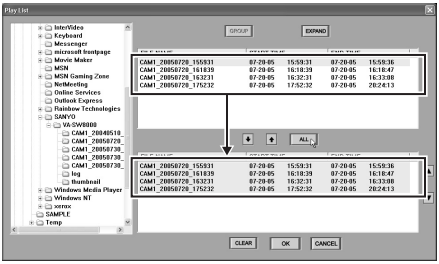
☞To select individual files and add them to the play waiting list:

On the available files list, select a single file you want to play, and then click ↓ (①). If you want to play more than one file, repeat this step for all the remaining files.



☞To add all files to the available files list:

Click ALL (③).
All files contained in the available files list are added to the play waiting list.



You can add up to 100 video files to the play waiting list.

☞**To remove a file from the play waiting list:**

On the play waiting list, select a file you want to remove, and then click ↑ (②).

☞**To remove all entries from the play waiting list:**

Click CLEAR (⑤).

☞**To move up or down a file in the play waiting list:**

The files contained in the play waiting list are played back in the same order as they are listed.

To move up or down in the play waiting list, select the file you want to move, and then click ▲ ▼ (④).

You can sort the files in the play waiting list based on the data contained in a particular column by clicking the column heading, just as you can in the available files list.
For more information, see P57.

5 **Click OK.**

This closes the [Play List] window and starts continuous playback of the files contained in the play waiting list.

- You can also start the playback by double-clicking a file on the play waiting list. In this case, the playback starts at the file you double-clicked.
- Once the playback has started, you can control the playback through the control panel; however, you cannot fast-forward or fast-reverse the playback if you started the playback by double-clicking a video file on the play waiting list.
- When split files are played back, individual files are loaded one after another.
- To close the [Play List] window and discard all changes, click [CANCEL].

Playing Back on MP2 Viewer

- Downloaded video files can also be played back on the dedicated playback application software “MP2 Viewer” (see P120).
  By double-clicking the “MP2 Viewer” file stored in the downloaded folder, the program is started. Similar to operations on this software, designate the video file you want to play back on the [Play List].

- In cases where the “MP2 Viewer” is associated as the default player for stored MP2 files, even if the [Play List] is not displayed, playback on “MP2 Viewer” can be automatically started simply by directly double-clicking the file.

  The following two methods of association are available:

  ① **When installing this software, configure in advance on the [File association] screen (see P8).**

  File association is configured in the system folder.

  ② **Configure [mp2 file associate with MP2Viewer] on the “MP2 Viewer” Option menu (see P121).**

  File association is configured on the “MP2 Viewer” that is currently activated.

  When "MP2 Viewer" is associated as the default player for the MP2 file, the file icon changes as follows.

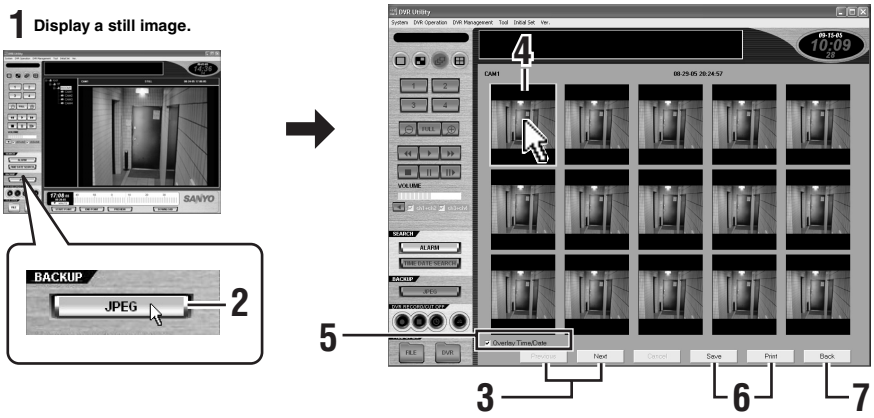
Saving or Printing Snapshot Images

(Required user access level: ID2/3/4)

When a still (snapshot) image is displayed, you can save it on other storage media or print it at the full size.

● Saving or Printing Images While Playing Back Video from a DVR

When you are playing back recorded video from a networked DVR, you can save or print a still image through the following procedures.



1 **Display a still image.**

Click ⏸ (the pause button) during playback.

The viewing pane may be in any of the single-view, four-view, and multi-view layouts; when in the multi-view layout, however, you must specify the sub-pane connected to the camera (DVR) whose video files you want to download by clicking its title bar.

2 **Click JPEG on the control panel.**

You are presented with a window that allows you to save or print the still image.

The window provides a thumbnail view that displays all frame images within the one-second range centered on the frame you have selected as the still image; this includes the frames 0.5 second ahead of and 0.5 second behind your selected still image as well as all frames in between.

The number of frame images actually displayed depends on the TV system in use.

- **NTSC:** 30 images
- **PAL:** 25 images

3 **To page up or down the thumbnail view:**

The thumbnail view spans two pages. You can page up or down the thumbnail view using Previous / Next.

4 **Choose an image.**

Click an image.

Your selected image is highlighted with a green frame.

5 **Select [Overlay Time/Date].**

Select the Overlay Time/Date check box if you want to overlay the image with the file name and time stamp.

6 **Click the appropriate command button.**

Click either of the following two buttons:

- Save **:**

  This button opens the [Save As] dialog, and you can save the image as a JPEG file by specifying the folder and file name.

- Print **:**

  This button opens the [Printing] dialog, and you can print the image at the full size by specifying the appropriate print options.

Click [Cancel] to discard all changes.

7 **Click** Back **.**

This closes the window and brings you back to the previous window where you displayed the still image.

- **In the default configuration, the lowest user access level authorized to save still images is ID2; however, you can use the [Options] window under the Initial Set menu to raise the lowest required access level so that users with user access levels ID2 and ID3 cannot access the save mechanism. For more information, see P73.**
- **The** JPEG **button is disabled unless you display a still image.**
- **When you zoom in on an image, you cannot save the image.**

● Saving or Printing Images While Playing Back a Downloaded File (see P56)

While playing back a downloaded file, you can save or print still images basically the same way as described in the previous section, except that no thumbnails are displayed.

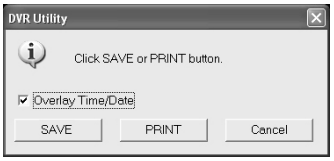
1 **Display a still image.**

2 **Click** JPEG **on the control panel.**

You are presented with a dialog that allows you to save or print the still image.

3 **Select the [Overlay Time/Date] check box.**

Select the [Overlay Time/Date] check box if you want to overlay the image with the file name and time stamp.



4 **Click the appropriate command button.**

Depending on whether you want to save or print the still image, select either SAVE or PRINT . You can save or print still images, just as you can while playing back video from a DVR.

Using the Tool Menu Options

The “Tool” menu provides various options that allow you to use the DVR Utility Software more effectively and productively.

To access these options, click [Tool] on the menu bar to open the pull-down menu, and then select your desired option.

If you are using VA-SW8000LITE, you cannot access the “Tool” menu.

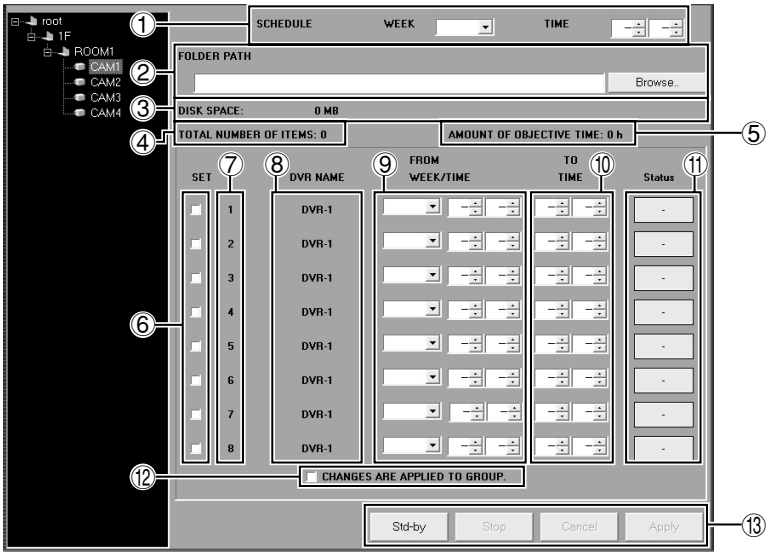
■ Timer Download (required user access level: ID2/3/4)

You can automate downloads. To do so, define the download range (by specifying the start and end points) on a DVR by DVR basis, and set up a timer schedule. The video file within the range will then be automatically downloaded when the preset time is reached.

You can define up to eight timer schedules for one DVR.

In the default configuration, the lowest user access level authorized to download video files is ID2; however, you can use the Options window under the Initial Set menu to raise the lowest required access level so that users with user access levels ID2 and ID3 cannot access the download mechanism. For more information, see P73.

● Window Elements and Their Functions



① **SCHEDULE**

Specify the date of the week and the time at which to start the download.

The date and time specified here are applied as common settings to this window.

- **To specify the date of week to schedule the download:**

  From the [WEEK] drop-down list, select SUN, MON, TUE, WED, THU, FRI, or SAT.

- **To schedule the download to occur at the same time every day:**

  From the [WEEK] drop-down list, select "**DLY**".

② **FOLDER PATH**

Click [Browse..] and specify the destination folder.
The destination specified here is applied as a common setting to this window.

You cannot specify a removable drive, but you can specify a network drive, as the destination.

③ **DISK SPACE**

Indicates the free disk space on the destination drive.

④ **TOTAL NUMBER OF ITEMS**

Displays the total number of timer download schedules for the current and other DVRs.

⑤ **AMOUNT OF OBJECTIVE TIME**

Displays the recording/playback time of the download range including the current and other DVRs. (Unit: hours)

The displayed length of time is a total value calculated by simply summing the lengths of time between the start and end points of all the scheduled timer downloads. Thus it may contain blank frames.

⑥ **SET**

You can turn on each schedule by selecting the corresponding check box in the leftmost column. Clear the check box for any schedule you want to suspend. This feature is useful when you define several timer schedules and choose from them depending on your need.

⑦ **NO.**

The timer downloads are performed in ascending order of the timer schedule numbers.

⑧ **DVR NAME**

The title of the DVR to which the timer schedule is applied.

Since this window is intended to define timer schedules for a single DVR, the same DVR name appears in all the rows.

⑨ **FROM WEEK/TIME**

Specify the start point of the download range (day of the week/time).

When you select "DLY" from the [WEEK] box in the [SCHEDULE] section, use the [FROM WEEK] section to specify the download range start point.

- **PREV:**

  Causes the download to contain video data recorded the day before the download is performed.

- **APPT:**

  Causes the download to contain video data recorded on the same day the download is performed; thus the download range starts at 00:00 on the day and ends immediately before the download is performed.

⑩ **TO TIME**

Specify the end point of the download range (time).

⑪ **STATUS**

Displays the latest download results or current status.

- **OK:** Download successful
- **NG:** Download failed
- **DL:** Download in progress
- **–:** Download scheduled but not started

Clicking [STATUS] displays the “download log” that contains the history of downloads. For more information, see P69.

The “download log” allows you to retry a failed timer download.

⑫ **CHANGES ARE APPLIED TO GROUP**

Allows you to apply your defined timer schedules to the group created in the [Register DVR] window.

To apply the schedules, select the check box and then click [Apply].

⑬ **Control buttons**

These buttons are context-sensitive. Any buttons unavailable in the current context are grayed out (disabled).

- Std-by **:**

  This button is used to activate the timer download.

  When you click the button, the timer download is put into standby and will automatically start when your start point conditions are met.

  The indicator at the top of the control panel indicates the timer download status as either “**Program (download scheduled but not started)**” or “**Downloading (download in progress)**”.

- Stop **:**

  Cancels all the timer downloads, including both standby and in-progress downloads, and resets them to the state before [Std-by] was clicked.

- Cancel **:**

  Cancels all changes that have been made, and initializes the window.

- Apply **:**

  Applies and saves the changes that have been made in this window.

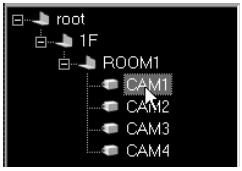
  To activate the downloads based on your settings, click [Std-by].

Configuring a Timer Download

To configure a timer download, follow these steps:

1 **Choose a DVR.**

On the tree list, click the camera title of the camera connected to your desired DVR. The title is highlighted in blue, and the title of the DVR to which the camera is connected appears in all rows in the [DVR NAME] section.



If the DVR has any scheduled download, the date is loaded and displayed on the window. Modify the schedule settings as needed.

2 **Define the download start point.**

In the [SCHEDULE] section, specify the date of the week and the time at which to start the download.

When you want to schedule the download to occur at the same time every day, select "**DLY**".

3 **Specify the destination folder.**

The folder and file name of its destination are automatically assigned as shown below, and the path name is displayed in [FOLDER PATH]. You can accept this default destination unless your situation requires another location.

To override the default destination, click [Browse..] and select your desired folder from the browse list. You can also create a new folder by clicking the [NEW FOLDER] button on the dialog.

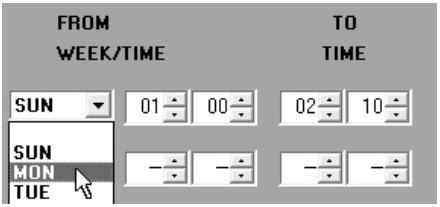
You cannot specify a removable drive as the destination.

4 **Define the download range by specifying the appropriate date/time.**

Depending on what you chose from the [WEEK] drop-down list in the [SCHEDULE] section, define by one of the following procedures:

When specifying the day of the week to schedule the download:

If you selected a setting that corresponds to a day of the week (i.e., "SUN" through "SAT") from the [WEEK] drop-down list, use the [FROM WEEK/TIME] section to specify the start point (day of the week/time) of the download range, and the [TO TIME] section to specify the end point (time).



When schedule the download to occur every day:

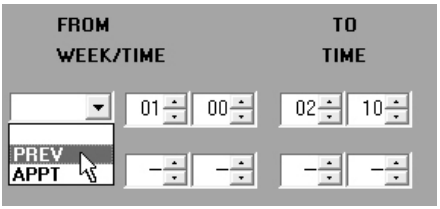
If you selected "**DLY**" from the [WEEK] drop-down list, use the [FROM WEEK/TIME] section to specify whether to download the video data recorded on the day before (PREV) or the same day as (APPT) the download occurs as well as the start point (time) of the download range, and the [TO TIME] section to specify the end point (time).

- **PREV:**

  Causes the download to contain the video data recorded the day before the download is performed.

- **APPT:**

  Causes the download to contain the video data recorded on the same day as the download is performed; thus the download range starts at 00:00 on the day and ends immediately before the download is performed.



5 **To add a timer schedule:**

You can repeat step 4 to define up to eight timer schedules for a single DVR.

6 **Activate the individual schedules you want to apply.**

To activate a timer schedule so that the timer download is performed as scheduled, select the check box in the [SET] section.

7 **Click** Apply **.**

Your schedule settings are applied and saved.

- **If the download range is not correctly specified, an error message appears. For more information, see P66.**
- **When you make changes and attempt to switch to another window without clicking the [Apply] button, a confirmation dialog appears. Choose whether to apply the changes by clicking the appropriate button on the confirmation dialog.**

8 **Click** Std-by **.**

The timer download is put into standby and will automatically start when your start point conditions are met.

The operating mode indicator at the top of the control panel indicates the timer download status as follows:

<Message text>

- **Program (displayed in orange):**

  Timer download scheduled but not started (standby).

- **Downloading (displayed in red):**

  Timer download in progress.

You cannot modify a timer schedule while the timer download is in standby or in progress (i.e., while the "Program" or "Downloading" message text is displayed). You must suspend the timer download by clicking [Stop] before you can modify a timer schedule.

Applying Changes to All DVRs in the Same Group

After you have made changes on this window, you can apply the new settings to all DVRs that belong to the same group.

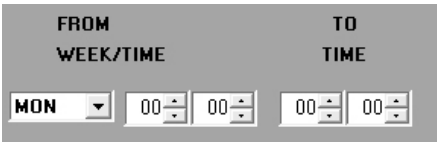
To do so, select the [CHANGES ARE APPLIED TO GROUP] check box before you click Apply.

In this context, a "group" means one of the DVR groups created on the [Register DVR] window, rather than those created on the [Edit Tree] window (i.e., the groups displayed in the tree list). Your settings will be applied to all DVRs connected with the cameras that belong to the group.

Tips on Defining the Download Range

Use the following tips when you define the download range:

- The download range must have its start point earlier than its end point. Otherwise, an error is generated.
- When you set the end point to "00:00", the system assumes 00:00 AM. on the next day.
  For example, you can define a 24-hour download range that spans all video data recorded on your selected day of the week by specifying as follows:



- If you specify the same day of the week for both the recording date of video data to download and the date on which to perform the download (i.e., for both the [FROM WEEK] drop-down list and [WEEK] drop-down list in the [SCHEDULE] section), the system will download the video data recorded one week before.
- When you select "APPT" from the [FROM WEEK] drop-down list, make sure that the download range end point is earlier than the time at which to start the download.

  Otherwise, an error is generated.

  Valid:
  Download start time: 22:30
  Download range: 6:00 thru 22:00

  Invalid:
  Download start time: 18:00
  Download range: 6:00 thru 22:00

How the Timer Download Mechanism Works

Before using the timer download mechanism, you should confirm the following points:

- A confirmation dialog appears when the scheduled download start time is reached. Choose either of the following two actions by selecting the appropriate button on the dialog:

  - **OK:**
    Close the window, and start the scheduled download.
  - **Cancel:**
    Cancel all the scheduled downloads without passing control to the download mechanism.

If there is no response to the confirmation dialog within 15 seconds, the system assumes that the user selects OK, and proceeds with the download process.

- The download process does not start if a user is connected to any of the affected DVRs when the download start time is reached. You should disconnect from all of the affected DVRs when the download start time is reached, even if you are currently viewing live video from the affected DVRs.
- The timer download mechanism does not operate unless the DVR Utility Software is up and running with a user logged in. You should not log out of the system or exit from the software while any download is in standby or in progress. (If you do so, a confirmation dialog appears.)
- If there are multiple download ranges defined, downloads are performed in the ascending order of their numbers (1 to 8).
- If the download mechanism cannot find any video data within a download range, which is defined by specifying when it starts and ends, it skips the corresponding timer schedule and generates an error.
  (The error information is written into the download log so you can review it later.)

Examples of Timer Download Settings

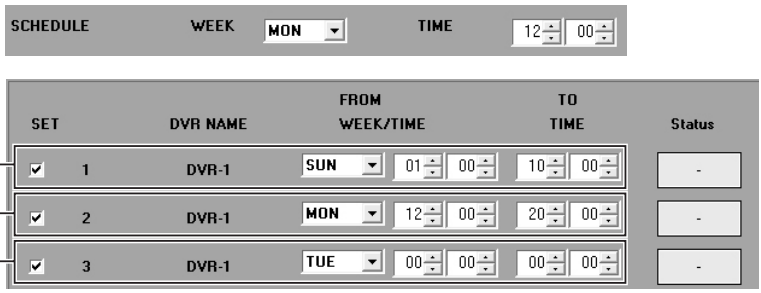
Weekly schedule example – selecting a setting that corresponds to a day of the week from the [WEEK] drop-down list in the [SCHEDULE] section

In this example, the system automatically downloads the recorded video data that meets the following criteria from DVR-1 at 12:00 on every Monday.

① Recorded within the time range of 1:00 to 10:00 on Sunday.

② Recorded within the time range from 12:00 to 20:00 on the previous Monday, rather than the current Monday because the [WEEK] drop-down list in the [SCHEDULE] section and the [FROM WEEK] drop-down list are both set to Monday.

③ Recorded throughout the 24 hours (00:00 to 00:00) of the previous Tuesday.



Daily setting example – selecting DLY from the [WEEK] drop-down list in the [SCHEDULE] section

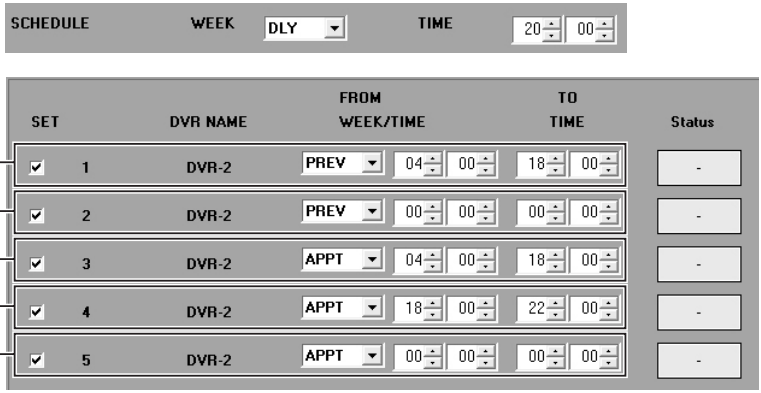
In this example, the system automatically downloads the recorded video data that meets the following criteria from DVR-2 at 20:00 everyday.

① Recorded within the time range of 4:00 to 18:00 on the day before.

② Recorded throughout the 24 hours (00:00 to 00:00) of the day before.

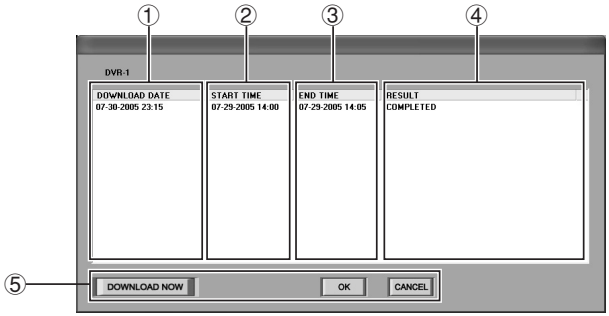
③ Recorded within the time range of 4:00 to 18:00 on the same day.

④, ⑤ The download start time (20:00) is earlier than the end point of the download range for the same day; this is an invalid schedule, so an error is generated when you attempt to activate it. To correct the error, choose “PREV”, instead of “APPT”, from the [FROM WEEK] drop-down list; or change the download range end point to a point in time that is earlier than the time at which to start the download.



Download Log

You can open the download log by clicking [Status] on the [Timer Download] window. The download log shows the detailed download history for each DVR.



① **DOWNLOAD DATE**

Indicates when the download started.

② **START TIME**

Indicates the start point of the download range.

③ **END TIME**

Indicates the end point of the download range.

④ **RESULT**

Indicates whether the download completed successfully. If not, it indicates why the download failed.

- **COMPLETED:**
  The download successfully completed.
- **NO DATA:**
  The download failed because no video data were detected in the specified download range.
- **COMMUNICATION ERROR:**
  The download failed because of a communication error.
- **CONTROL BUSY:**
  The download failed because a user was connected to the affected DVR.
- **PC HDD FULL:**
  The download failed because of insufficient disk space.
- **USER CANCELED:**
  The download was cancelled because the [Stop] button was clicked.
- **DOWNLOAD TIMEOUT:**
  The download timed out, failing to complete before the start time of the next download.
- **DOWNLOAD TIME CHANGED:**
  The download range was changed because no video data were found between the specified start and end points.
- **DUPLICATION ERROR:**
  The download file name conflicted with an existing file in the destination folder.

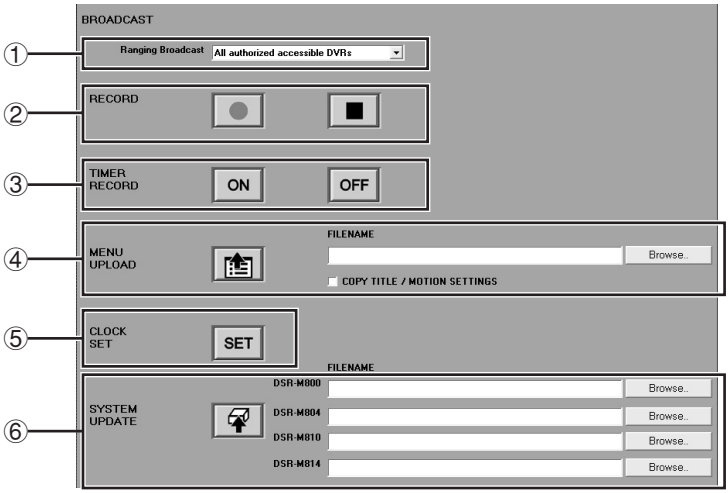
⑤ **Control buttons**

- DOWNLOAD NOW **:**
  This button allows you to run a failed download immediately.
  Select the download you want to run by clicking the corresponding entry on the download log, and you are presented with a window for manually starting the download. This window is already populated with all information required for running the download. You can accept the defaults and proceed with the download by clicking [Download].
- OK **:**
  Clicking this button closes the dialog and resets the [Status] indicator to "–".
- CANCEL **:**
  Clicking this button closes the dialog but leaves the [Status] indicator intact.

■ Broadcast

The Broadcast window contains five commands and allows you to broadcast the commands to all of the connected DVRs without having to specify individual DVRs as targets.

When broadcasting a command, the system polls the connected DVRs at one-minute intervals; however, if any DVR fails to respond within 3 minutes, the system assumes that the DVR is not operating for some reason and displays a communication error message.



① Ranging Broadcast

When [Broadcast Range] is set to "**Apply authorized accessible DVRs**" in configuration of limit accessible DVRs in the [User ID] window, accessible broadcast ranges are listed on pull-down menu, so the following options are available (see P94):

- **When "All authorized accessible DVRs" is selected:**

  Broadcast is possible to all DVR groups authorized for access.

- **When a DVR group is selected:**

  Transmission is limited to only one selected group.

② RECORD
(required user access level: ID3/4)

Broadcasts the Record (manual recording) command, equivalent to one that can be executed by clicking the Record button on the control panel.

You can instruct all the DVRs to simultaneously start or stop recording video data by clicking ● (Start Recording) or ■ (Stop Recording).

③ TIMER RECORD
(required user access level: ID3/4)

Broadcasts the Timer Recording command, equivalent to one that can be executed by clicking the Timer Recording ( ) button on the control panel.
Also, you can click ON or OFF to have all the DVRs simultaneously turn on/off their timer recording mechanisms.

④ **MENU UPLOAD**
(Required user access level: ID4)

You can simultaneously update the menu files on all the DVRs by doing the following:

1 Click [Browse..].

A dialog opens that displays a list of referenced files.

2 Select the menu file you want to broadcast, and click [Open].

The [FILENAME] box is populated with your specified file name.

The menu file you plan to broadcast must be stored on your computer's hard disk before you can broadcast it. For more information, see P102.

3 Turn on or off the [COPY TITLE / MOTION SETTINGS] check box.

This check box lets you choose whether to broadcast the camera title and motion sensor settings configured on the TITLE/MOTION SET tab of the [DVR Set] window. To broadcast the information, select the check box.

4 Click .

The menu file information is broadcast to all the DVRs, and they simultaneously update their menu information.

⑤ **CLOCK SET (Required user access level: ID4)**

Broadcasts the [Clock Set] command to all the DVRs, equivalent to using the [Clock Set] window under the DVR Management menu.

Clicking SET instructs all the DVRs to synchronize their internal clocks with your computer's internal clock.

⑥ **SYSTEM UPDATE**
(Required user access level: ID4)

You can broadcast the [SYSTEM UPDATE] command, which is equivalent to using the [System Update] window under the DVR Management menu, by doing the following.

Note that this broadcasts firmware updates to all the DVRs.

1 Click [Browse..].

Choose which button to click based on the model of the connected DVRs.

Types of button:

For DSR-M800, DSR-M804, DSR-M810, and DSR-M814

When you click the button, a dialog opens that displays a list of referenced files.

2 Select the firmware file you want to broadcast, and click [Open].

The boxes that correspond to the models of the connected DVRs are populated with your specified file name.

The firmware file you plan to broadcast must be stored on your computer's hard disk before you can broadcast it.

3 Click .

The firmware file information is broadcast to all the DVRs, and they simultaneously update their firmware.

- **Do not use any other firmware file than supplied from SANYO; doing so may possibly damage the DVRs.**
- **Before you can update the firmware, the DVR(s) must stop any playback or recording session and the DVR Utility Software must display live video.**
- **The update process takes a few minutes. Do not turn off the power or disconnect your computer from the network while the update process is in progress.**

■ Tamper Detection (required user access level: ID2/3/4)

It is possible to appraise whether or not video or date and time information of files downloaded from DVR to external recording media has been tampered with by the following procedure.

1 **Click [Browse..].**

A dialog opens that displays a list of referenced files.

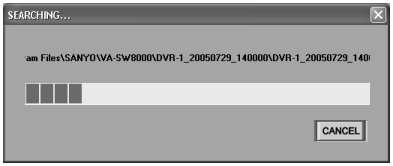
2 **Select the video file you want to check for tampering, and click [Open].**

The [FILENAME] box is populated with your specified file name.

You cannot load a video file (.mp2) unless it is stored together with the index file (.idx) of the same file name in the same folder.

3 **Click** Inspect **.**

The system starts checking the video file for any altered frames. During this process, the progress bar in the dialog shows the status.



To cancel the process in progress, click [CANCEL] on the dialog.

4 **Review the results of tamper detection.**

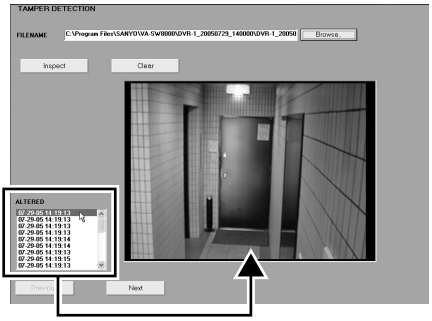
- **If no altered frames are detected:**

  The “No altered frames are found.” message appears in the dialog.

- **If altered frames are detected:**

  The [ALTERED] window appears that lists the time stamps of the altered frames. You can display any altered frame by clicking the corresponding row on the [ALTERED] window.

  Click [Previous] or [Next] to move the selected row up or down on the [ALTERED] window and automatically switch the altered frame.



To display an altered frame, click the corresponding row.

- **If tampering of date and time information is detected:**

  The “Found time-stamp is altered.” message appears in the dialog.

Tampering of date and time information can only be detected when the DVR from which video data was downloaded is DSR-M810(P)/DSR-M814(P) and the firmware version is 2.30-00 or higher.

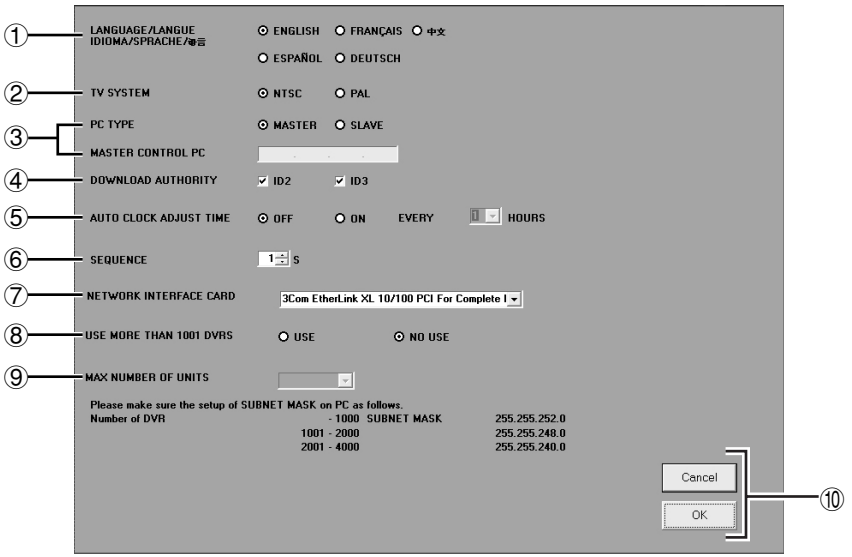
Initial Set Menu

(Required user access level: ID4)

The Initial Set menu provides access to four windows: “Options”, “Tree Edit”, “Register DVR”, and “User ID”. Using these windows, you can configure basic settings required to operate the system, including network settings and system preferences. The administrative user should use these windows to configure initial settings when starting the DVR Utility Software for the first time after installation.

On the menu bar, click [Initial Set] to open the pull-down menu, and navigate to one of the windows by clicking the corresponding option.

■ [Options] Window



① **LANGUAGE (default: ENGLISH)**

Identifies the display language used throughout the user interface of the DVR Utility Software. To change the display language, select the appropriate radio button.

Available options:

English, French, Chinese, Spanish, German

② **TV SYSTEM (default: NTSC)**

Choose the video standard (either NTSC or PAL) depending on the input signal specifications by selecting the appropriate radio button.

Available options: NTSC or PAL

③ **PC TYPE/MASTER CONTROL PC**

Choose whether to use your computer as the master computer or a slave computer by selecting the appropriate radio button.

Available options:

- **MASTER (master computer):**

  Within the system, you can use only one computer as the master, which is authorized to register or delete networked DVRs and perform all operations.

  If you have selected the "MASTER" option, the [MASTER CONTROL PC] field can be left blank.

- **SLAVE (slave computer):**

  Slave computers are for use by end users. If you have selected the "SLAVE" option, you must fill the [MASTER CONTROL PC] field with the IP address of the master computer.

- **If you have selected the "SLAVE" option, be sure to fill the [MASTER CONTROL PC] field; otherwise, a message "IP ADDRESS ERROR" appears when you click the [OK] button, and your changes are all discarded.**
- **User ID and password can be separately set for the master computer and the slave computer. For security purposes, change all computer passwords for each user level from the initial settings (1111 - 4444) without fail.**

④ **DOWNLOAD AUTHORITY (default: ID2/ID3)**

By selecting or clearing each of the two check boxes, you can specify whether to authorize each of user access levels ID2 and ID3 to download video files, define download timer schedules, and save/print still images.

Tips on authorization

A user authorized to download video files can also view all the video files during the download process and while working with the downloaded files, even if the associated channel is masked so that the video cannot be displayed on the monitor. Clearing the check boxes prevents users with user access levels ID2 and ID3 from viewing masked images; this feature is useful when it is critical to ensure the privacy and confidentiality of masked video.

⑤ **AUTO CLOCK ADJUST TIME (default: OFF)**

This feature automatically synchronizes all of the connected DVRs with your computer's internal clock.

To activate this feature, select the "ON" radio button, and specify the interval of auto synchronization.

Available options: 1, 2, 3, 6, 12, 24 (hours)

This feature cannot be configured during the one-hour period before or after Summer Time switching.

⑥ **SEQUENCE (default: 1)**

When you are connected to a 4-channel DVR, you can use Sequential Switching mode to monitor in turn each of the cameras connected to the four channels. Here, you can set the switching interval using the spin button. For more information, see P36.

Valid range: 1 to 30 (seconds)

● Network Extension Mode

By default, the DVR Utility Software supports up to 1,000 DVRs connected to the network. If you want to connect more DVRs to the network, you can activate the network extension mode, in which you can connect up to 4,000 DVRs. To do so, follow these steps:

⑦ NETWORK INTERFACE CARD (NIC)

This drop-down list contains network interface cards installed in your system. Choose one network interface card from the list.

⑧ USE MORE THAN 1001 DVRS

To switch to the extension mode, select the "USE" radio button.

- **USE:**
  Sets the number of DVRs to 1,001 or more (extension mode)
- **NO USE (default):**
  Sets the number of DVRs to within 1,000

⑨ MAX NUMBER OF UNITS

Once you have activated the extension mode (by selecting USE), you can specify the maximum number of DVRs. When you open the drop-down list, it displays several choices for the number of DVRs that can be connected based on the value of the network interface card's subnet mask. Choose the most suitable choice.

Subnet mask value	Number of DVRs connected
255.255.252.0	Up to 1,000
255.255.248.0	1,001 - 2,000
255.255.240.0	2,001 - 4,000

For the system to correctly operate, one of the above three subnet mask values must be chosen.

⑩ Control buttons

- Cancel **:**
  Before you click [OK], you can cancel your changes by clicking this button.
- OK **:**
  Applies and saves your changes.

When you are done, click [OK] to save your changes.

Some settings do not take effect until you quit the DVR Utility Software and reboot the computer.

☞Settings that take effect immediately when you click [OK]:

- **DOWNLOAD AUTHORITY**
- **AUTO CLOCK ADJUST TIME**
- **SEQUENCE**

☞Settings take effect after the computer is rebooted:

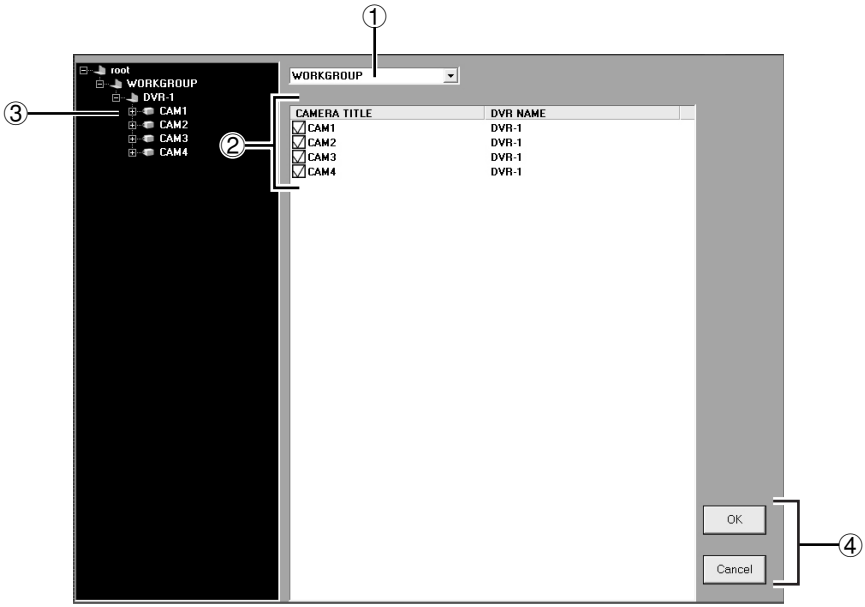
- **LANGUAGE**
- **TV SYSTEM**
- **PC TYPE/MASTER CONTROL PC**
- **NETWORK INTERFACE CARD**
- **Network extension mode**

■ [Tree Edit] window (editable on the master computer only)

The DVR Utility Software always lets you select cameras and groups from the tree list when you perform various operations and configurations using windows. The [Tree Edit] window allows you to edit titles and groups so that they are well-organized and easy to use and customize the tree branches based on your monitoring needs.

- Although the [Register DVR] window displays the DVR tree list, the tree list you edit here is intended for end-user windows and displayed on a camera-by-camera basis.
- Similarly, groups you create here are camera groups that are independent from DVR groups.
- You can also access the [Tree Edit] window by selecting the [Tree Edit] option on the context menu of the tree list.
- This window is editable on the master computer only.

● Window Elements and Their Functions



When you are done, click [OK] to save your changes and update the tree list.

When you make changes and attempt to switch to another window without clicking the [OK] button, a confirmation dialog appears. Choose whether to apply the changes by clicking the appropriate button on the confirmation dialog.

① **Selecting a DVR Group**

The drop-down list shows the groups registered via the [Register DVR] window. From the list, select one group you want to edit.

The details of your selected group are listed in the detail list.

② **Detail list**

- **CAMERA TITLE:**

  The titles of the cameras connected to the DVRs that belong to the group.

  At first, the list shows the titles configured on the part of the DVRs or those configured on the TITLE/MOTION SET tab of the [DVR Set] window (for 4-channel models).

  When displayed on the tree list, the camera title's check box is checked.

- **DVR NAME:**

  The titles of the DVRs connected with the cameras.

  By default, the list shows the values configured initially when DVRs are registered, or DVR titles configured on the [Register DVR] window.

③ **Tree list**

Cameras belonging to the selected group are displayed as a tree list.

All editing of titles and the tree structure is conducted on the tree.

④ **Control buttons**

- OK **:**

  Applies and saves your changes.

- Cancel **:**

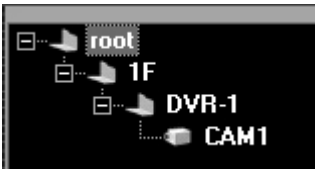
  Before you click [OK], you can cancel your changes by clicking this button.

About the tree list hierarchy

Depending on whether the connected DVRs are single-channel or 4-channel, the tree list represents the camera(s) as follows:

☞**When you are connected to a single-channel DVR:**

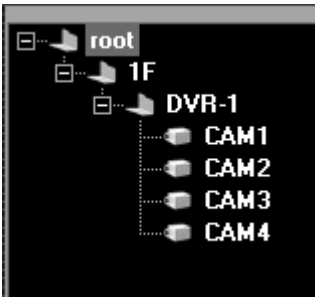
The list displays one camera for one DVR.



☞**When you are connected to a 4-channel DVR:**

The list displays four cameras for one DVR.

If using commands such as record and playback that are applicable to individual DVRs, executing the command to just one of the four cameras will cause the other three to automatically follow suit.



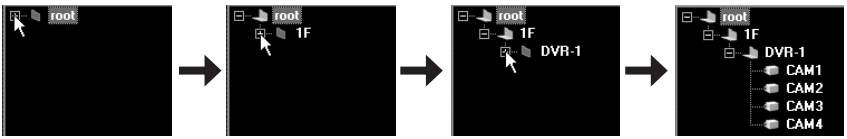
Editing the Tree List

The context menu that appears when you right-click a camera or group title in the tree list provides you with various commands for editing the tree list. You can do the following by selecting the appropriate command:

☞Open or close a tree

The tree list is hierarchical: lower level tree nodes can be opened and closed by clicking the ⊞/⊟ buttons on the left.

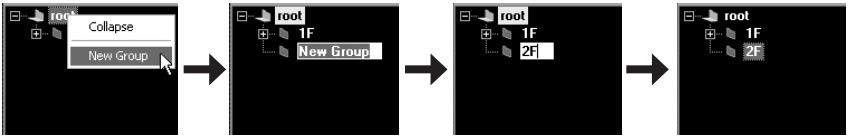
Alternatively, you can expand or collapse tree nodes by right-clicking on the root node (folder) or a group node and selecting “Expand/Collapse” from the context menu.



☞Create a group

Right-click on the root node (folder) or a group folder, and select “New Group” from the context menu.

A new group folder appears at the bottom of the tree list with the default name of “New Group”. You can give the new group your own name by typing it into the name box. After typing in the group name, press the [Enter] key to add the new group to the list.



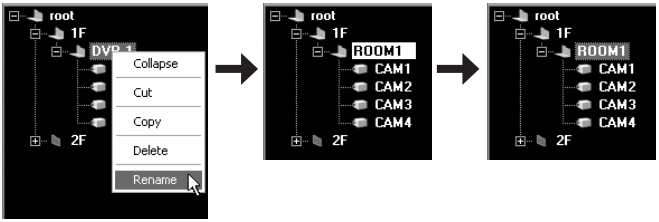
- The name can contain any characters and symbols that can be typed in but its length must be within 246 half-size characters.
- The list can accommodate up to 4002 groups including the root group.
- You can create up to four hierarchical levels including the root and can place groups on the second and third levels and cameras on the second to fourth levels.

Move at least one camera to a created group.
If a group contains no cameras, it will be automatically deleted from the tree list when [OK] is clicked for that group. (Following deletion, a confirmation message will appear.)

☞Change a title

Right-click on a camera or group title, and select “Rename” from the context menu.

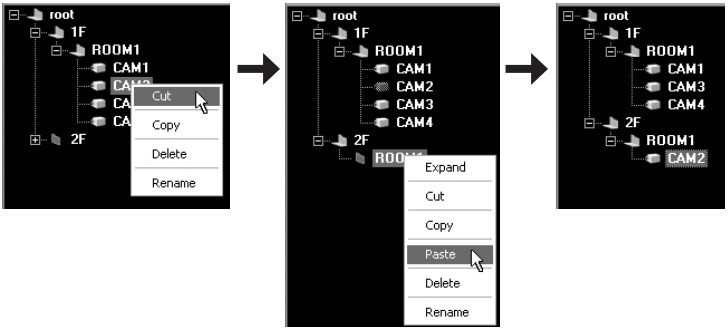
In the name input box that appears, type in a new name and then press the [Enter] key. The tree list and detail list are updated to reflect the new name.



The name can contain any characters and symbols that can be typed in but its length must be within 246 half-size characters.

☞Move

To move a camera from one to another group or move a group to a different position, cut and paste the camera or group title using the **Cut and Paste** commands on the context menu. Alternatively, you can **drag and drop** a camera or group title to a new position.

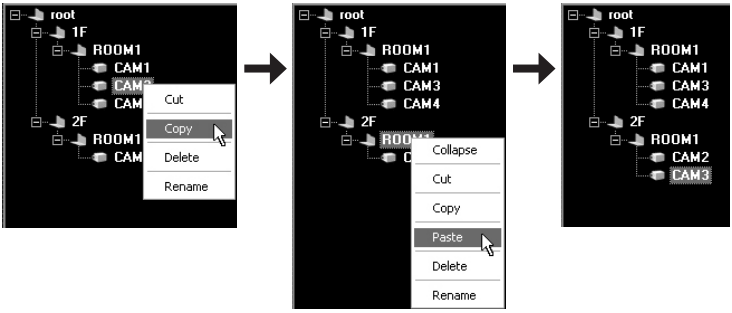


- A camera can be placed on any hierarchical level in the tree, even on the top or lower levels.
- A group can contain another group placed immediately beneath it, but you cannot include more than two groups in a single tree.

☞Duplicate

You can duplicate a camera or group so that it belongs to more than one group. You can also create two instances of a group and include one of them underneath another group.

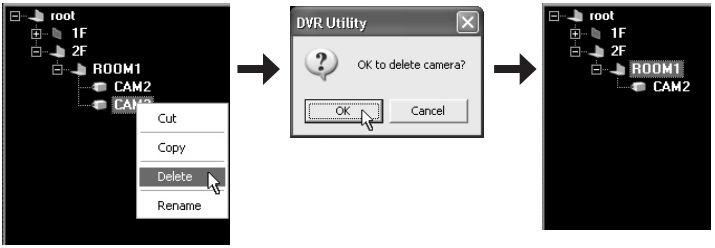
To duplicate a camera or group, copy and paste the camera or group title using the **Copy and Paste** commands on the context menu.



You cannot add more than one instance of a camera to the same group.

☞Delete

To delete a camera or group from the tree list, select “Delete” from the context menu. On the confirmation dialog that appears, click [OK].



- When you remove a camera from the tree list, the corresponding check box in the detail list is cleared.
- If you want to add a previously removed camera to the tree list again, select the camera on the detail list, and drag and drop it onto the tree list.

- **You can delete a group only when the group contains no camera.**
- **When you remove all instances of a camera from the tree list, the camera title configured on this window is lost, and the title in the detail list is reset to the default title.**

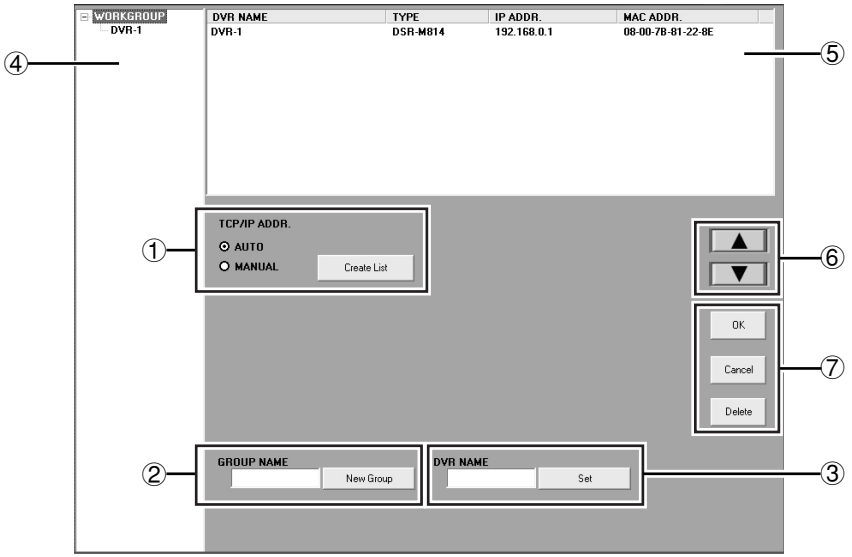
■ [Register DVR] window (accessible on the master computer only)

The [Register DVR] window, accessible on the master computer only, allows you to register or delete DVRs connected to the monitoring network.

Slave computers contact the master computer to obtain the DVR registration information.

- **Before you can use the DVR Utility Software, you must register DVRs connected to the network. When you start up the master computer for the first time, be sure to perform this initial configuration task.**
- **The [Register DVR] window displays the tree list and groups intended exclusively for DVR registration and management purposes. When you edit the tree list and groups actually displayed on the user interface, you must use the [Tree Edit] window, rather than the [Register DVR] window. For more information, see P76.**
- **By default, the DVR Utility Software supports up to 1,000 DVRs connected to the network. If you want to connect more DVRs to the network, you can use the [Options] window to activate the network extension mode, in which you can connect up to 4,000 DVRs. For more information, see P75.**
- **When you are done, click [OK]. Your changes are saved, and the configuration data is uploaded to the DVRs.**
  When you make changes and attempt to switch to another window without clicking the [OK] button, a confirmation dialog appears. Choose whether to apply the changes by clicking the appropriate button on the confirmation dialog.

● Window Elements and Their Functions



① **IP address configuration mode selector**

② **Group name section**

③ **DVR title section**

④ **DVR tree list**

This tree list displays group nodes (folders) and DVRs that belong to each group.

When you change or delete the registration information of a DVR, you can use the tree list to select the DVR or group.

⑤ **DVR registration list**

This list displays the information on the DVRs that belong to a group selected in the tree list.

You can also use the registration list to select the DVR(s) whose registration information you want to change or delete.

- **DVR NAME**
- **TYPE (model)**
- **IP ADDR.**
- **MAC ADDR.**

⑥ **Up/down buttons**

You can move up or down a group or DVR in the list by selecting the group or DVR and then clicking this button.

Alternatively, you can select a DVR or group on the tree list and drag and drop it to a new position.

⑦ **Command buttons**

- OK **:**

Saves your change, and updates the DVRs with the new settings.

If a group contains no cameras, it will be automatically deleted from the tree list when [OK] is clicked for that group.

- **Following deletion, a confirmation message will appear.**
- **The initially configured "WORKGROUP" cannot be deleted.**

Clicking [OK] will bring up the following dialog.

Select whether or not to reflect the contents configured in the [Register DVR] window on the user screen tree list.

- **Yes:**
  The current tree list is deleted, and a new tree list reflecting the new settings is displayed.
- **No:**
  The configured contents are stored, however, the tree list display remains the same.

- Cancel **:**

Before you click [OK], you can cancel your changes by clicking this button.

- Delete **:**

Remove the registration information of DVRs or groups.

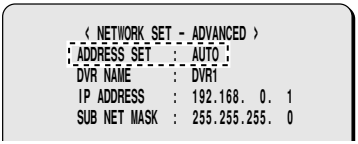
Registering New DVRs

You can register a new DVR by configuring the DVR's IP address either automatically or manually.

● Auto configuration mode

1 Select auto configuration mode on the DVR's NETWORK SET screen.

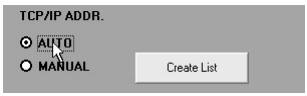
On the NETWORK SET screen, set [ADDRESS SET] to “AUTO”.



(The actual configuration screen differs depending on the DVR model.)

2 Select “AUTO” from [TCP/IP ADDR.].

This activates the IP address auto configuration mode.



3 Click Create List.

The system starts creating the registration list, with the command buttons on the windows temporarily disabled.

4 Press and hold the [STILL] button on the DVR’s front panel.

Hold down the button until the DVR’s internal beeper chirps twice.

If the beeper outputs an intermittent beep and then a continuous beep, it means that the system has failed to allocate an IP address. Try again after making sure that the network connections and configurations are correct.

5 Review the registration information displayed on the list.

When the process completes successfully, an IP address is allocated to the DVR, and the tree list and registration list display the following items.

- **GROUP:**
  A newly registered DVR belongs to the WORKGROUP group by default (but the group can be changed).
- **DVR NAME:**
  A newly registered DVR is by default assigned a title that consists of the last six digits (XX-XX-XX) of the MAC address (but the title can be changed).
- **TYPE:**
  The DVR's model is automatically recognized and displayed.
- **IP ADDR.:**
  The automatically allocated IP address is displayed.
- **MAC ADDR.:**
  The DVR's own MAC address is automatically recognized and displayed.

6 Click Create List again.

The command buttons are enabled.

7 If you have other DVRs you want to register, repeat steps 1 to 6 above for each of the DVRs.

8 Editing the Tree List

A newly registered DVR is associated with default title and group, which you can change as needed.
For more information, see P86.

In auto configuration mode, you can specify in advance the group to which the new DVR should belong. To do so, click the desired group (or an existing DVR that belongs to the desired group) before clicking the Create List button. This makes the newly registered DVR belong to your specified group, rather than the default group.

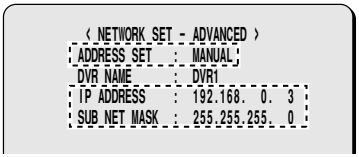
9 Click OK.

Your changes are saved and uploaded to the DVR.

● **Manual configuration mode**

1 **Manually configure the IP address on the NETWORK SET screen of the DVR.**

On NETWORK SET, set [ADDRESS SET] to “MANUAL”, and configure the IP address and subnet mask.



- **The last three digits of the IP address must be configured within the range of 001 to 250.**
- **Make sure that the new IP address does not conflict with any existing IP address.**
- **How to configure the IP address differs depending on the DVR model. For more information, refer to the DVR’s user’s manual.**

2 **When you have additional DVRs you want to register, repeat the same configuration steps for each of them.**

3 **Select “MANUAL” from [TCP/IP ADDR].**

This activates the IP address manual configuration mode.

4 **Click** Create List **.**

The system starts creating the registration list, with the command buttons on the windows temporarily disabled.
(If you have configured more than one DVR for registration, they are registered at once.)

Normally, it takes about 20 seconds to create the list, but it may take longer (up to 80 seconds) depending on the subnet mask setting.

5 **Review the registration information displayed on the list.**

When the process completes successfully, the tree list and registration list are updated to reflect the registration information of the new DVR, and the command buttons are enabled. Items displayed in the registration list are the same as in auto configuration mode. For more information, see P83.

If the new DVR you register in manual configuration mode has already been assigned to a group, that group name is inherited.

6 **Editing the Tree List**

A newly registered DVR is given a default title and group, which you can change as needed.
For more information, see P86.

7 **Click** OK **.**

Your changes are saved and uploaded to the DVR.

☞Using a Registration List in an Updated Version

If you have updated the DVR Utility Software from VA-SW800/804/814 to VA-SW8000, you can configure the system to use the registration list created in the previous version. To do so, use the [Register DVR] window and follow these steps:

①Install VA-SW8000.

During the installation process, you are prompted to choose whether to remove the old version's software files; if you click YES, the files are automatically removed.

② On the [Register DVR] window, select "MANUAL" from [TCP/IP ADDR].

③ Click the [Create List] button.

After a while, the DVR Utility Software retrieves currently registered information from the DVR and displays it.

④ Click [OK].

The list is registered, and the registration information is uploaded to the DVR.

Deregistering a DVR

To deregister a DVR, follow these steps:

1 Choose a DVR.

On the tree list or registration list, select the DVR you want to deregister. The selected DVR is highlighted in blue.

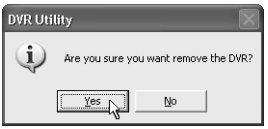
2 Remove the connecting cable.

Remove the connecting cable from the DVR. When you attempt to deregister a DVR while it is still connected to the network, an error results.

3 Click Delete **.**

You are prompted to choose whether to proceed. Click [Yes] if you are sure to deregister the DVR.

Your specified DVR is deregistered, and removed from the tree list and registration list.



Change a DVR Title

A newly registered DVR is by default assigned a title that consists of the last six digits (XX-XX-XX) of the MAC address, but you can change the title through the following steps:

1 **Choose a DVR.**

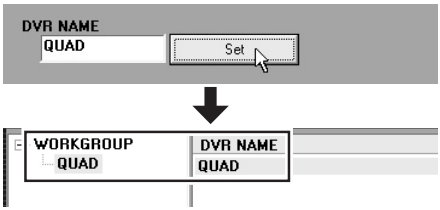
On the tree list or registration list, select the DVR whose title you want to change. The selected DVR is highlighted in blue.

2 **Type your desired title into the [DVR NAME] box.**

A DVR title can contain uppercase letters and numbers, up to 10 characters in all. It can also contain these special characters: - : . /*, and space.

3 **Click** Set **.**

The tree list and registration list are updated to reflect the new DVR title.



Alternatively, you can type in a new DVR title by clicking a DVR on the tree list and then immediately clicking the DVR's title part.

4 **If you have other DVRs whose titles you want to change, repeat steps 1 to 3 above for each of the DVRs.**

5 **Click** OK **.**

Your changes are saved and uploaded to the DVR.

Creating, Modifying, or Deleting a Group

A newly registered DVR belongs to the "WORKGROUP" group by default, but you can create new groups or rename existing groups so that you can monitor the DVRs more effectively.

- **WORKGROUP is a built-in group that cannot be renamed or deleted.**
- **When you edit the tree list and groups actually displayed on the user interface, you must use the [Tree Edit] window, rather than the [Register DVR] window.**

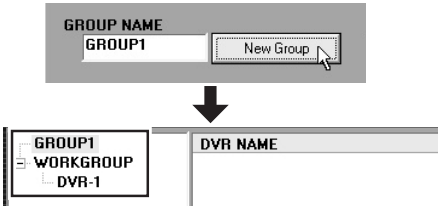
● To create a new group:

1 **Enter the new group name into the [GROUP NAME] box.**

A group name can contain uppercase letters and numbers, up to 10 characters in all. It can also contain these special characters: - : . /*, and space.

2 **Click** New Group **.**

The new group is added to the list and appears as the last group in the list, but above the built-in "WORKGROUP" group, which is always displayed at the bottom of the tree list.



If your entered group conflicts with an existing group name, a "duplicate" error results.

3 **If you have other groups you want to create, repeat steps 1 to 2 above for each group.**

4 **To make a DVR belong to a new group:**

Select a DVR currently contained in an existing group, and move it into the new group by drag and drop.

Move at least one camera to a created group.
If a group contains no cameras, it will be automatically deleted from the tree list when [OK] is clicked for that group. (Following deletion, a confirmation message will appear.)

5 **Click** OK **.**

Your changes are saved and uploaded to the DVR.

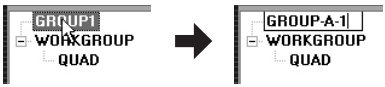
● **To rename a group:**

1 **Choose a group.**

On the tree list, select the group you want to rename. The selected group is highlighted in blue.

2 **Enter a new name for the group.**

You can type in a new name by clicking the group name part immediately after clicking the group.



3 **If you have other groups you want to rename, repeat steps 1 to 2 above for each group.**

4 **Click** OK **.**

Your changes are saved and uploaded to the DVR.

● **To delete a group**

1 **Choose a group.**

On the tree list or registration list, select the group you want to delete. The selected group is highlighted in blue.

2 **Click** Delete **.**

Your specified group is removed from the registration list.

You can delete a group only when the group contains no DVR. If the group still contains a DVR(s), move the DVR(s) into another group before the deletion.

Rearranging Groups and DVRs

You can rearrange the tree list by moving groups and DVRs contained in it.

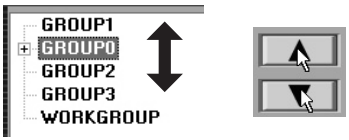
● To move a group:

1 **Choose a group.**
On the tree list, select the group you want to move. The selected group is highlighted in blue.

2 **Click ▲ or ▼.**
Your selected group moves up or down (along with any DVRs contained in it).

You can also drag and drop a group to a new position.

The "WORKGROUP" group is fixed at the bottom and cannot be moved.

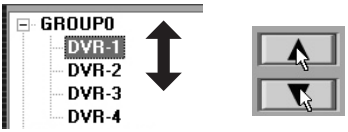


● To move a DVR:

1 **Choose a DVR.**
On the tree list, select the DVR you want to move. The selected DVR is highlighted in blue.

2 **Click ▲ or ▼.**
Your selected DVR moves up or down.

You can also drag and drop a DVR to a new position.



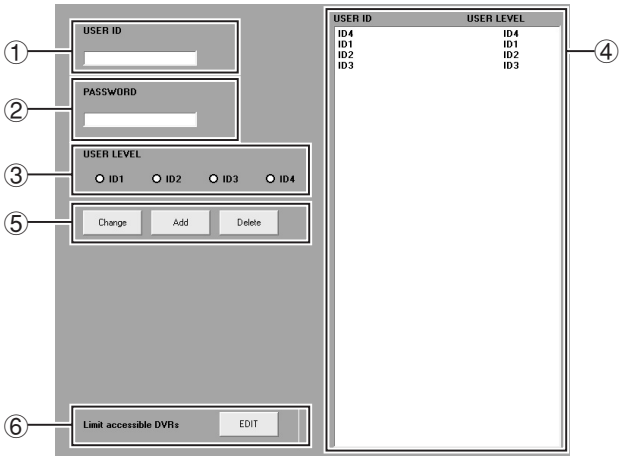
When you select the first DVR shown in a group and click ▲, the DVR leaves the current group and moves up into the previous group. Similarly, when you select the last DVR shown in a group and click ▼, the DVR leaves the current group and moves down into the next group.

■ [User ID] Window

This window allows you to register or deregister users authorized to log into the system. The DVR Utility Software supports up to 32 authorized users.

- **You must use the master computer to register, change, or deregister a user with user access level ID4.**
- **For the default user account with user name ID4, you can only change the password, and cannot change the user name or user access level or deregister the account.**

● Window Elements and Their Functions



① USER ID

Enter the user ID that identifies a user on the network.

② PASSWORD

Enter the password required to authenticate the user at login time.

③ User access level buttons

Select one of the four user access levels by clicking the corresponding radio button.

④ User registration list

This box lists the user name and user access level of each registered user (but does not display the password for security reasons).
When you want to change or deregister a user, select the user from this list.

By default, this window displays the initial settings for user access levels 1 to 4.

⑤ Control buttons

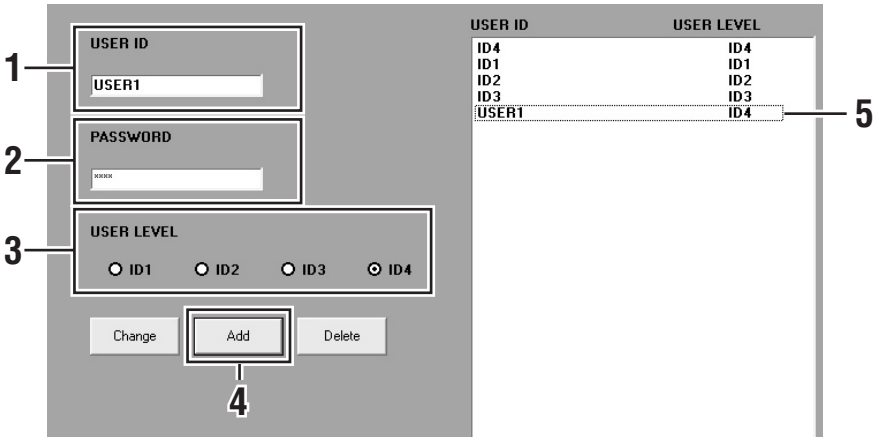
- Change **:**
  Changes the registration information of a registered user.
- Add **:**
  Registers a new user.
- Delete **:**
  Deregisters a user.

⑥ DVR access limitation button

Accessible DVR groups and the broadcasting range can be configured for each user (see P93).

Registering a New User

To register a new user, configure the user ID, password, and user access level through the following steps:



1 Enter the user ID into the [USER ID] box.

Enter the user name (user ID) that is used to identify the user on the network. The user ID can consist of up to 16 characters including letters (case-sensitive) and numbers. You can also use these special characters: :./*

The user ID (user name) must be unique. If your specified user ID is already in use, a “duplicate” message appears.

2 Enter the password into the [PASSWORD] box.

Enter the password that is required to authenticate the user at login time.

The password can consist of 4 to 16 characters including letters (case-sensitive) and numbers. You can also use these special characters: :./*

3 Choose a user access level.

Select one of the four user access levels by clicking the corresponding radio button. For more information, see P11.

Available options:

ID1 (Monitoring user), ID2 (Playback user), ID3 (Recording user), ID4 (Administrative user)

4 Click Add **.**

You are prompted to confirm the password by reentering it.

5 Reenter the password.

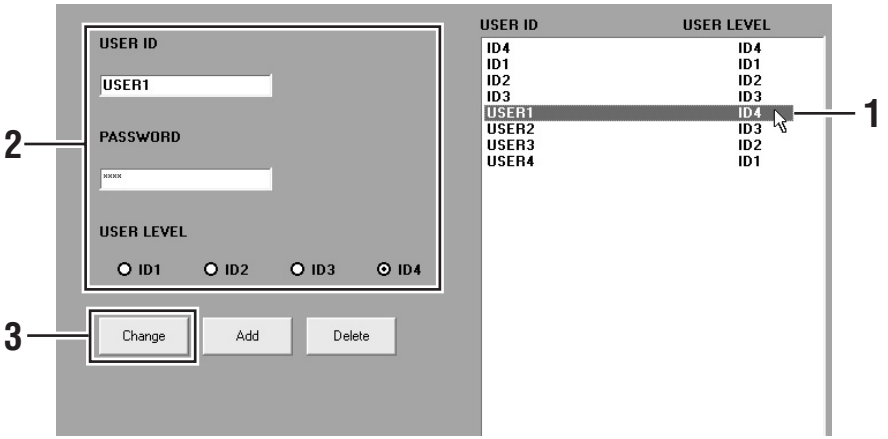
Be sure to reenter the new password to the [NEW] box. This must be identical to the one you specified in step 2. Then click [OK].

When the reentered password is correct, the registration is completed, and the user registration list is updated with the newly registered user ID (user name) and user access level.

An error message appears if your reentered password does not match the one you specified. If this is the case, reenter the correct password.

Changing the Registration Information of an Existing User

You can change the user ID, password, or user access level of an existing user. To do so, follow these steps:



1 Choose a user.

On the user registration list, select the user whose information you want to change. The selected user is highlighted in blue, and the user's registration information appears.

2 Change the registration information.

Change the user ID, password, and/or user access level through the same steps you follow when registering a new user.

3 Click Change **.**

When you change the user ID and/or user access level but not the password, the user registration list is immediately updated to reflect your changes.

If you change the password, you are prompted to confirm the password by reentering it. In this case, proceed to step 4.

4 Enter the current and new passwords.

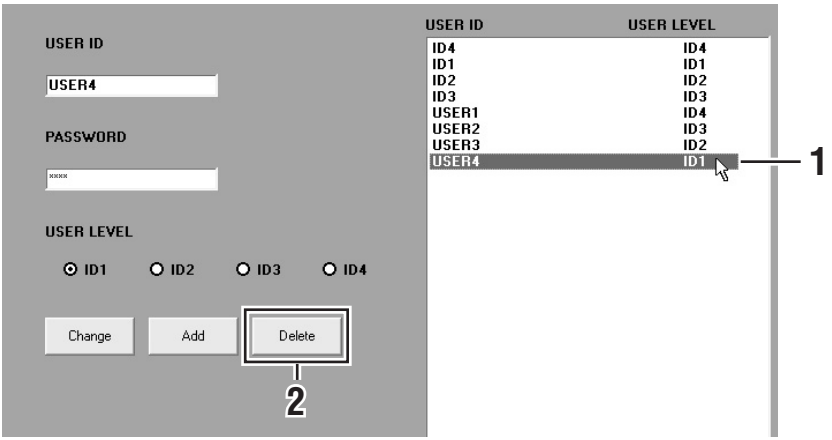
On the dialog, enter the currently defined password into the [CURRENT] box, and reenter the new password to the [NEW] box. The password entered into the [NEW] box must be identical to the one you specified in step 2.

If your entered current and new passwords are correct, the registration process is completed, and the user registration list is updated to reflect your changes.

An error message appears if your reentered password does not match the one you specified. If this is the case, reenter the correct password.

Deregistering an Existing User

To deregister an existing user, follow these steps:

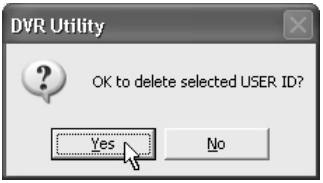


1 **Choose a user.**

On the user registration list, select the user you want to deregister. The selected user is highlighted in blue, and the user's registration information appears.

2 **Click** Delete **.**

You are prompted to choose whether to proceed. Click [Yes] if you are sure you want to deregister the user.



3 **Click [OK].**

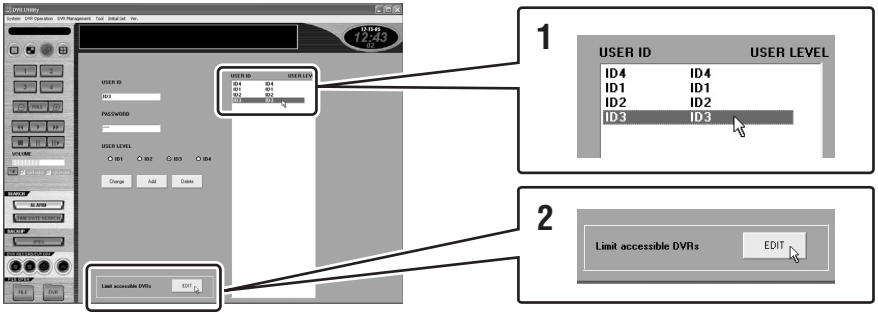
Your specified user is deregistered, and removed from the user registration list.

DVR Access Limitation

The following settings can be configured per user.

- Accessible DVR groups
- Broadcasting permission or broadcasting range

To configure the DVR access limitation settings, follow these steps.



1 **Specify the user.**

Click the target user from the user registration list. The user ID and the user access level are highlighted in blue.

2 **Click [EDIT] for [Limit accessible DVRs].**

The [AUTHORIZED DVR ACCESS] dialog box is displayed.

3 **Configure [Limit accessible DVRs].**

Select whether to limit the accessible DVRs or not.

Options:

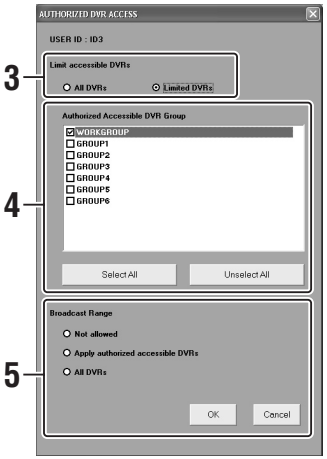
- **All DVRs (default):**

  DVR access is not limited.

  →All DVRs are accessible.
- **Limited DVRs:**

  DVR access is limited.

  →Configure the limitations by setting [Authorized Accessible DVR Group] (step 4) and [Broadcast Range] (step 5).



If you select a DVR not authorized for access from the Tree List when selecting “Limited DVRs”, a confirmation dialog box with the message “Not allowed to access this camera.” appears.

4 **Configure [Authorized Accessible DVR Group] settings.**

The DVR groups registered in the [Register DVR] window accessible from the Initial Set menu are listed. Selecting the check box of a group authorizes access to the group.

5 **Configure [Broadcast Range] settings.**

Select the broadcasting range using the radio buttons.

Concerning the following notes (!) related to the selected option, a confirmation message is shown in the dialog box when the relevant button is selected. Confirm the contents and click [OK].

Options:

- **Not allowed:**
  Broadcast operations are not permitted.
- **Apply authorized accessible DVRs:**
  Broadcast is only possible to the DVR groups authorized for access in [Authorized Accessible DVR Group] (step 4).
  →It is also possible to limit the transmission destination to one group in configuration of [Ranging Broadcast] on the [BROADCAST] window (see P70).
- **All DVRs:**
  Broadcast is possible to all DVRs.

Broadcast is limited depending on the DVR model and firmware version.
- **DSR-M810(P)/M814(P):**
  Broadcast is only possible when the DVR firmware version is 2.20 or higher.
- **DSR-M800(P)/M804(P):**
  Broadcast to these models is not possible.

Broadcast is also sent to the DVR groups not authorized for access in [Authorized Accessible DVR Group] (step 4).

You cannot advance to the next step without configuring the [Broadcast Range] settings.

The [Broadcast Range] settings cannot be configured in the following cases.
- When the access level of the target user is ID1/ID2 (users not authorized to perform broadcast operations).
- When the software you are using is VA-SW8000LITE (not equipped with broadcast functions).

6 **Click [OK].**

Saves the DVR access limitation settings and closes the dialog box.

DVR Management Menu

(Required user access level: ID4)

The DVR Management menu, intended for use by an administrative user, provides access to four windows: Clock Set, System Update, DVR Info, and DVR Set. The [DVR Set] window has seven tabs, through which you can fine-tune the DVR operating conditions.

On the menu bar, click [DVR Management] to open the pull-down menu, and navigate to one of the windows by clicking the corresponding option.

The DVR Management menu lets you select a camera from the tree list. Settings configured on each window are uploaded to the DVR connected with your selected camera.

■ [Clock Set] Window

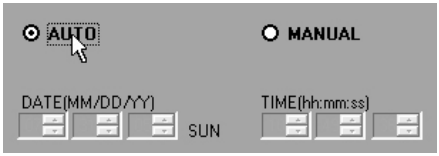
You can set the internal clock of your specified DVR through the following steps:

1 Choose a camera (DVR).

From the tree list, select a camera connected to the DVR whose internal clock you want to set. The selected camera is highlighted in blue.

2 Choose from two setting modes.

Choose one of the two setting modes by clicking the corresponding radio button.



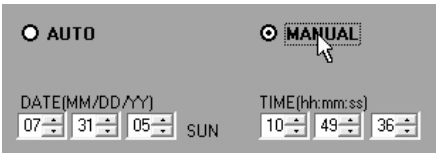
- **AUTO (default):**

  In this mode, the DVR is automatically synchronized to your computer's internal clock.
- **MANUAL:**

  In this mode, you manually set the DVR's internal clock.

3 If you have selected "MANUAL", set the date and time manually.

Use the spin buttons to set the date and time.



- **The date can be configured within the range of January 1, 2002 to December 31, 2036.**
- **The actual date format is determined by the corresponding Windows settings.**

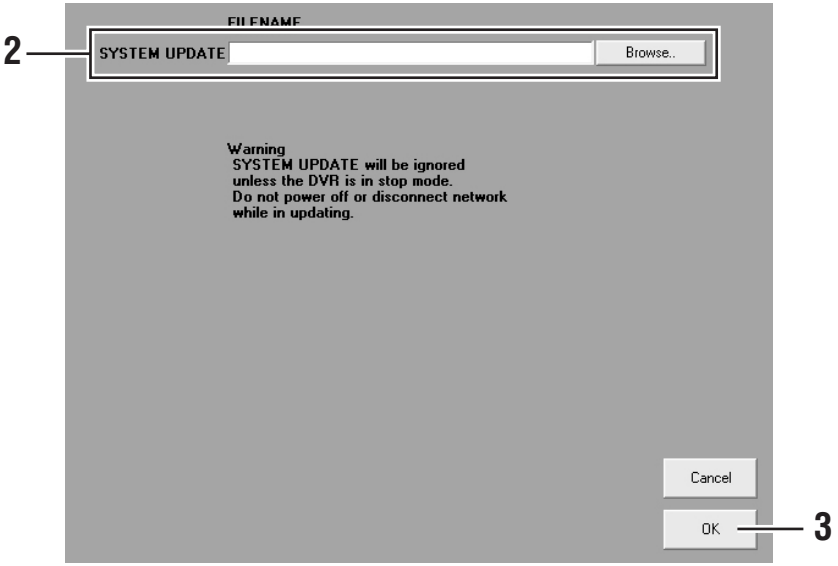
4 Click OK **.**

The DVR's clock is adjusted based on the mode you selected.

- To instruct all the connected DVRs to simultaneously adjust their internal clocks, use the broadcast feature available from the Tool menu. For more information, see P70.
- To synchronize all connected DVRs to your computer's internal clock at regular intervals, open the [Options] window from the Initial Set menu, and configure the [AUTO CLOCK ADJUST TIME] settings. For more information, see P74.

■ [System Update] Window

You can update the firmware of your specified DVR through the following steps:



1 **Choose a camera (DVR).**

From the tree list, select a camera connected to the DVR whose firmware you want to update. The selected camera is highlighted in blue.

2 **Specify the new firmware file.**

Click [Browse..] to open a file list. Locate and select the new firmware file, and click the [Open] button.
The [FILENAME] box is populated with your specified file name.

3 **Click** OK **.**

You are prompted to choose whether to update the firmware. If you click [YES], the system starts updating the firmware.

4 **Wait until the update process completes.**

You are presented with a dialog that indicates that the update process is in progress, and a green light flashes.

- **The firmware file you plan to broadcast must be stored on your computer's hard disk before you can broadcast it.**
- **Do not use any other firmware file than that supplied from SANYO; doing so may possibly damage the DVRs.**
- **Before you can update the firmware, the DVR(s) must stop any playback or recording session and the DVR Utility Software must display live video.**
- **The update process takes a few minutes. Do not turn off the power or disconnect your computer from the network while updating is in progress.**

■ [DVR Info] Window

This window consists of two tabs that display the information on the target DVR's configurations and hard disk status. Also, the window provides a command that initializes the hard disk(s).

You can work with this window as follows:

1 Choose either of the two tabs.

Select one of the two information tabs by clicking the tab index.

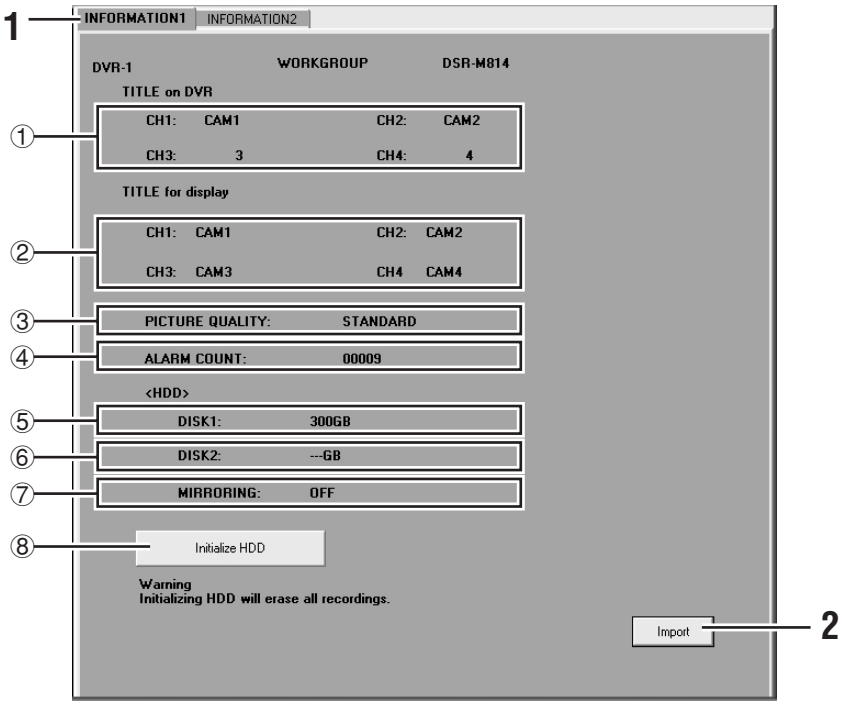
2 Import the information.

To import the latest information from the DVR and activate the tab, do the following:

- From the tree list, select a camera, and click the Import button at the bottom of the window.
- Alternatively, double-click a camera on the tree list, and click [Yes] on the confirmation dialog that appears.

You can also access the [DVR Info] window by selecting the [Status] option on the context menu of the tree list. In this case, the DVR information is automatically loaded without clicking the [Import] button.

INFORMATION 1 tab



<DVR information>

① **TITLE on DVR**

Camera titles configured on the DVR main unit or on the TITLE/MOTION SET tab of the [DVR Set] window (for a 4-channel DVR).

② **TITLE for display**

Camera titles configured for use by the system, as configured on the [Tree Edit] window under the Initial Set menu. These titles are used throughout the DVR Utility Software user interface.

③ **PICTURE QUALITY**

Recording quality levels supported by the DVR (SUPER+, SUPER, HIGH, STANDARD).

④ **ALARM COUNT**

Cumulative total number of alarm recordings.

<Hard disk drive information>

⑤ **DISK1**

Total capacity of hard disk 1.

⑥ **DISK2**

Total capacity of hard disk 2.

⑦ **MIRRORING (applies when there are redundant hard disks)**

On/off status of mirroring.

What is mirroring?

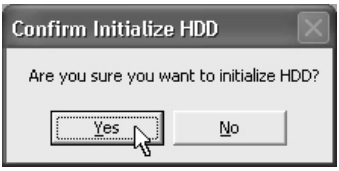
You can create a redundant mirror of a hard disk by installing an additional hard disk. This enables “mirroring”, in which the same video data are recorded into two identical disks at the same time.

Mirroring provides a fault tolerance benefit because, when one of the two disks has failed resulting in a read/write error, you can continue to read the video data with the other disk.

⑧ **Initialize HDD button**

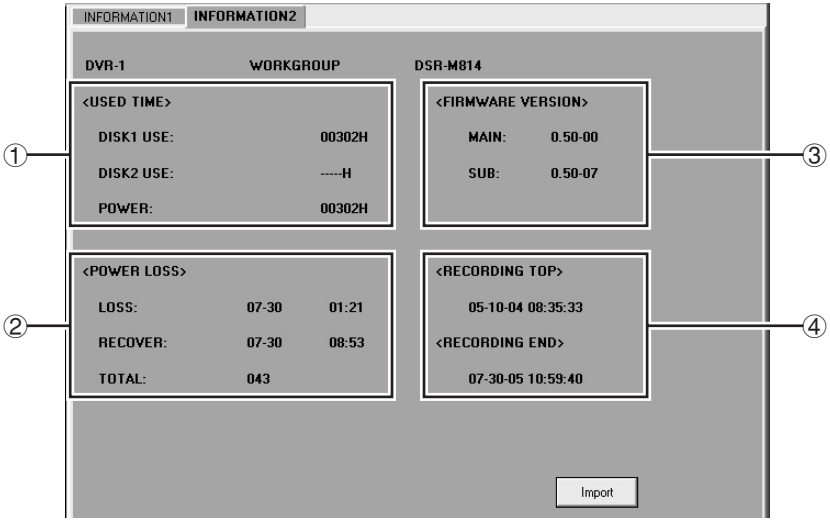
This command button allows you to initialize the DVR’s hard disk(s).

You are prompted to choose whether to proceed. Click [Yes] if you are sure to initialize the hard disk(s).



- **When you initialize a hard disk, all the data recorded on the disk are lost. You should therefore store important data on another storage medium in advance. For how to back up the data, refer to the DVR’s user’s manual.**
- **When you install an additional hard disk, be sure to initialize it. In this case, you cannot selectively initialize a particular hard disk; all the installed hard disks are initialized. For how to install an additional hard disk, consult your dealer.**
- **Take extreme care not to turn off the power to the DVR during the initialization.**

INFORMATION 2 tab



① USED TIME

Indicates the total operating hours of each hard disk as well as the total power-on hours of the DVR.

② POWER LOSS

Indicates when the most recent power failure occurred and when it was recovered as well as the total cumulative number of power failures.

③ FIRMWARE VERSION

Indicates the version of the DVR's firmware (main/sub).

No firmware version is indicated if the DVR is DSR-M800 (P).

④ RECORDING TOP/END

Indicates when the first recording session started and when the last recording session stopped.

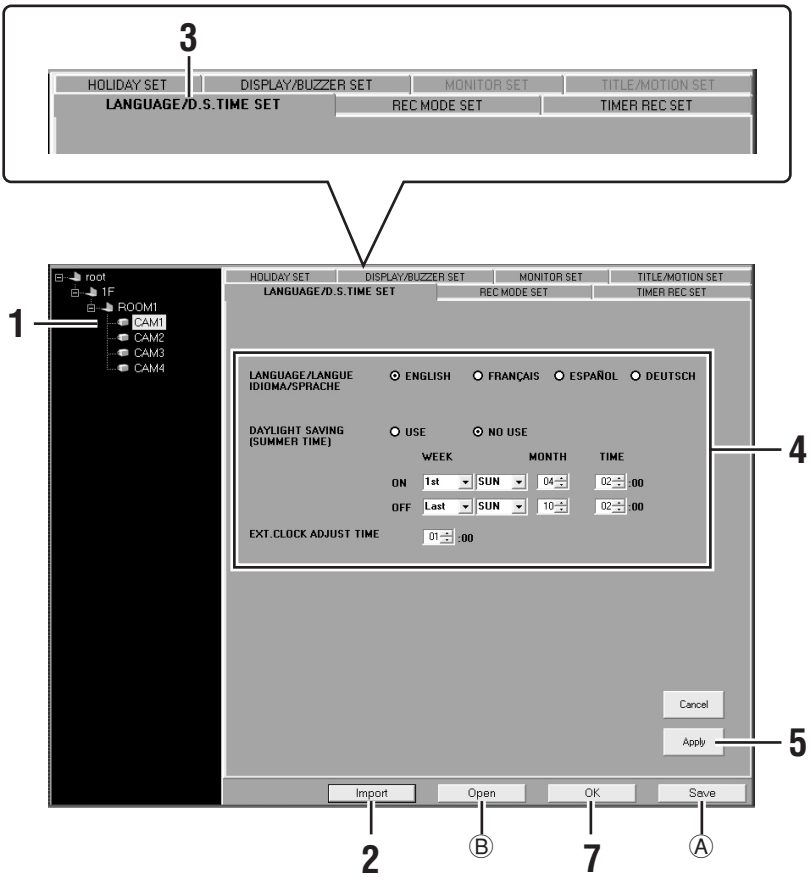
This information is displayed only if the DVR is DSR-M810 (P)/M814 (P).

■ [DVR Set] Window

The [DVR Set] window consists of seven tabs through which you can configure DVR operating conditions. Although the DVR main unit also provides an interface to configure its operating conditions, you can perform these configuration tasks easier through the [DVR Set] window.

● Basic Configuration Steps

When you have just navigated to the [DVR Set] window from another window, all of its tabs are initially disabled and do not accept any entry. Before you can configure settings on the window, you must choose a camera and click the [Import] button on the first tab. Then, you can configure the DVR operating conditions on the window. Follow the steps described on the next page.



1 **Choose a camera (DVR) on the tree list.**

The selected camera is highlighted in blue.

The [DVR Set] window lets you select a camera from the tree list. Settings configured on each tab are uploaded to the DVR connected with your selected camera.

2 **Click** Import **.**

The system retrieves current configuration information from the DVR, and activates all the tabs.

- You can also import the configuration information by double-clicking a camera title on the tree list, instead of using the [Import] button.
- You can also access the [DVR Set] window by selecting the [Menu] option on the context menu of the tree list. In this case, the DVR information is automatically loaded without clicking [Import] button.

3 **Choose one of the tabs.**

You can switch to one of the tabs by clicking the tab index.

4 **Change operating conditions displayed on the tab.**

The fields on the tab are populated with the current configuration information, as imported in step 2. Check each field to see the current setting, and change the settings as needed.

5 **Click** Apply **.**

Clicking this button saves the settings displayed on the tab into an edit table in your computer.

At this stage, the configuration information has not yet been sent to the DVR. The text on the tab index turns from black to yellow, indicating that the tab contains changes that have not yet been uploaded.

6 **To configure settings on other tabs as well:**

Repeat the above procedure (steps 3 to 5).

When you make any change on a tab, its tab index text turns yellow.

7 **Click** OK **when you are done.**

Configuration information is uploaded from all the tabs to the DVR, and the tab index text returns from yellow to black.

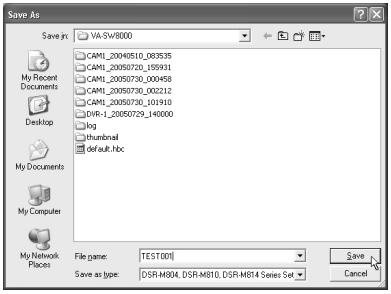
When you make changes on any tab (so that its index text turns yellow) and attempt to switch to another window without clicking the [OK] button, a confirmation dialog appears. Choose whether to apply the changes by clicking the appropriate button on the confirmation dialog.

● To save the configuration information

While your are editing configuration information on the [DVR Set] window, you can save the information as a menu file on your computer's hard disk or some other storage medium.

1 **On the [DVR Set] window, click** Save **(Ⓐ).**

The [Save As] dialog appears.



2 **Specify the destination folder and file name, and then click [Save].**

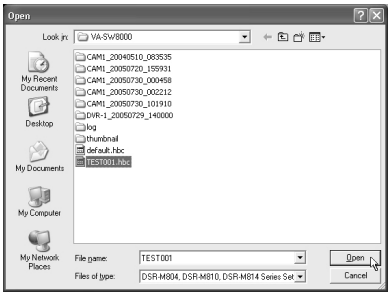
The current configuration information is saved in your specified folder, and you are returned to the same tab.

- **You cannot selectively save the contents of a particular tab. The configuration information is saved from all the tabs.**
- **The system saves all changes currently contained in the window tabs, whether or not the [Apply] or [OK] button has been clicked.**
- **The destination folder defaults to "VA-SW8000". Change the destination as needed.**
- **Before you can broadcast menu information using the [MENU UPLOAD] section of the [Broadcast] window, you must save the menu information.**
  For more information, see P70.

● To load a saved menu file:

1 **On the [DVR Set] window, click** Open **(Ⓑ).**

The [Open] dialog appears.



2 **Specify the file you want to load, and click [Open].**

The system loads the saved information and overwrites the fields in all the tabs.

At this stage, the configuration information has not yet been sent to the DVR. The text on all the tab indexes is displayed in yellow, indicating that the tabs contain changes that have not yet been uploaded.

Once the save information is loaded, you can work with the window tabs as usual.

● How the command buttons function and how the system responds

<Buttons that affect the computer's edit table>

Apply **:**

- Clicking this button saves the changes made on the tab into the computer's edit table but does not send the data to the DVR.
- Once you have saved the changes, the tab index text turns yellow, indicating that the tab contains changes that have not yet been uploaded.
- If your changes include any error, an error message appears when you have clicked this button.

Cancel **:**

- Before you click [Apply], you can cancel all changes you have made to the tab by clicking this button.
- When there are changes that have not been uploaded because you have clicked [Apply], you can use this button to cancel the upload and reset the tab to the state it was in before you clicked [Apply] (and the tab index text turns back black).

<Buttons that control read/write operations>

Import **:**

- When you click this button, the system retrieves current configuration information from the DVR, and activates all the tabs.
- You can also import the configuration information by double-clicking a camera title on the tree list, instead of clicking this button.
- When there are changes that have not been uploaded because you have clicked [Apply], you can use this button to cancel the upload and overwrite the tab with the imported information (and the tab index text returns from yellow to black).

Open **:**

- Using this button, you can open a menu file that was saved by clicking the [Save] button. The system overwrites all the tabs with the information contained in the file.
- The information loaded into the tabs has not yet been uploaded, and the text on all the tab indexes turns yellow.

OK **:**

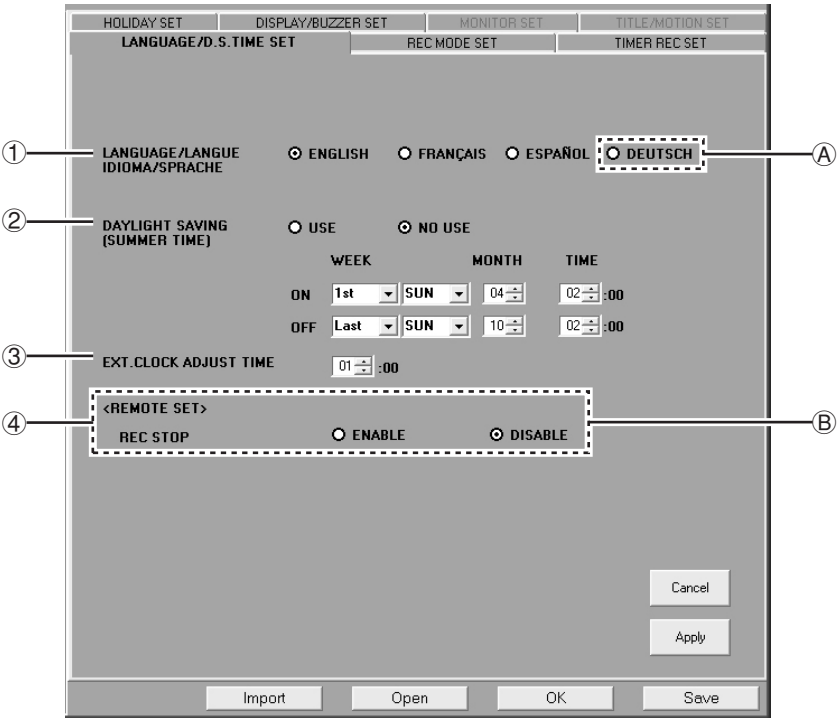
- When there is configuration information that has not yet been uploaded and you click this button, the system uploads the configuration information from all the tabs to the DVR, and the tab index text returns from yellow to black.

Save **:**

- While your are editing configuration information on the [DVR Set] window, you can use this button to save the information as a menu file on your computer's hard disk.

1 LANGUAGE/D.S.TIME SET Tab

On this tab, you can configure settings related to the DVR's display language and clock adjustment.



Ⓐ : The German (DEUTSCH) option for the display language is only selectable when the [TV SYSTEM] on the [Options] window is set to “PAL”.

Ⓑ : The [REMOTE SET] menu is only displayed when the connected DVR is the DSR-M810.

① LANGUAGE/LANGUE/IDEOMA/ SPRACHE (default: ENGLISH)

You can select the language used on the DVR's user interface.

Available options:

English, French, Spanish, German

This is not the language used on the DVR Utility Software user interface. Changing the DVR's user interface language does not affect the DVR Utility Software's user interface.

② DAYLIGHT SAVING [SUMMER TIME] (default: NO USE)

Turn on the auto summer time switching feature when you use the DVR in regions where the summer time system is used.

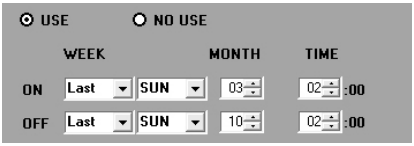
Available options:

- **USE:**

  Turns on the auto summer time switching feature.
  (To use this feature, you have to set the start and end points of the summer time period.)
- **NO USE:**

  Turns off the auto summer time switching feature.

Example



- In this example, the time system is automatically switched from standard time to summer time (daylight saving time), and the clock is advanced one hour, at 2:00 AM on the last Sunday in March.
- The time system is automatically switched from summer time (daylight saving time) to standard time, and the clock is delayed one hour, at 2:00 AM on the last Sunday in October.

③ EXT. CLOCK ADJUST TIME (default: 1)

When you have more than one DVR connected to the system, you can use this feature to automatically synchronize the DVRs to your computer's clock once a day. Use the spin buttons to set the time when to synchronize the DVRs.

The time adjustment works as follows: At a specified time, a signal is supplied from the "CLOCK ADJ OUT" pin of the first (base) DVR to the "CLOCK ADJ IN" pin of the second DVR so that both of the clocks are synchronized; then, another signal is supplied from the second DVR to the third DVR (if any) for the synchronization. In this manner, all the DVRs are synchronized to the same time. The adjustment is accurate to the second.

- **This feature can be used only when the DVRs are provided with a "CLOCK ADJ" terminal.**
- **Do not use a loop connection.**
- **Use the same settings across all the DVRs affected.**

④ REMOTE SET (default: DISABLE) (Dedicated to DSR-M810)

When you are using the wired remote controller (VA-RMN01), which is available as an option, you can use this setting to control whether to allow the remote controller to stop the recording of video.

Available options:

- **ENABLE:**

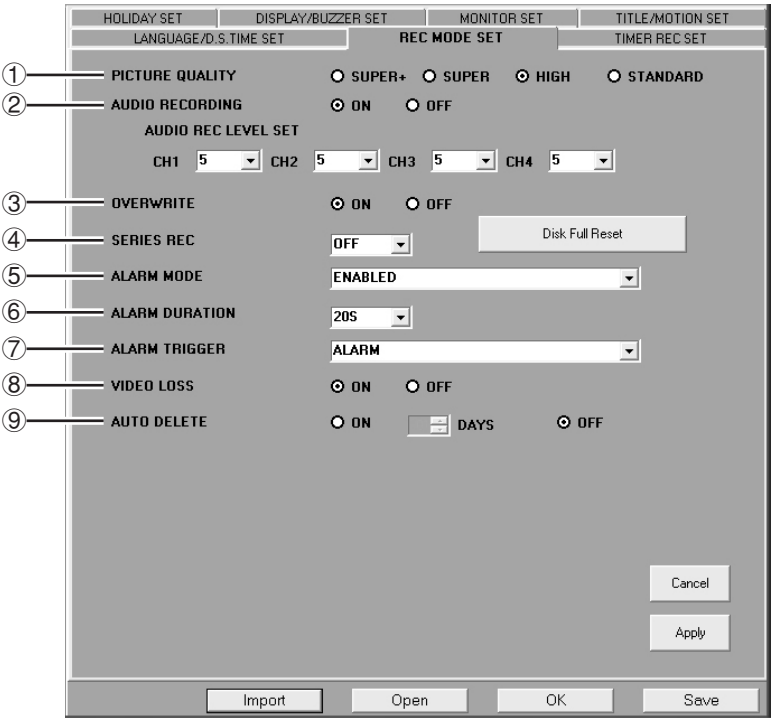
  Allows the remote controller to stop recording.
- **DISABLE:**

  Does not allow the remote controller to stop recording.

When you have finished configuring the settings on this tab, click Apply and make sure that the tab index text turns yellow. When you have finished your configuration task across all the tabs, finally click OK. Configuration information is uploaded to the DVR, and the tab index text returns from yellow to black.
(For more information on the command buttons, see P103.)

2 REC MODE SET Tab

On this tab, you can configure the DVR's recording conditions.



① **PICTURE QUALITY**
(default: HIGH)

You can change the quality level applied when the DVR records video. The higher the quality, the shorter the length of time that can be recorded.

Available options:

- **SUPER+:** Super-high quality plus (74 hours at minimum)
- **SUPER:** Super-high quality (112 hours at minimum)
- **HIGH:** High quality (224 hours at minimum)
- **STANDARD:** Standard quality (448 hours at minimum)

- **The parenthesized values are a rough guideline for the length of time that can be recorded on a 160GB medium.**
- **The "SUPER+" option is only selectable if the DVR is DSR-M810/M814.**
- **When you choose "SUPER+", it is recommended to play back video in the single-view layout.**

TV SYSTEM (video standard)	Image quality	Resolution (pixels)
NTSC (30 fps)	SUPER+	720 x 480
	SUPER	720 x 480
	HIGH (default)	720 x 480
	STANDARD	720 x 480 (DSR-M804/ M814) 352 x 480 (DSR-M800/ M810)
PAL (25 fps)	SUPER+	720 x 576
	SUPER	720 x 576
	HIGH (default)	720 x 576
	STANDARD	720 x 576 (DSR-M804/ M814) 352 x 576 (DSR-M800/ M810)

② **AUDIO RECORDING (default: ON)**

Choose whether to record the sound at the same time by selecting either the “ON” or “OFF” radio button.

Available options:

- **ON:** The system records sound as part of the video data.

  (Each channel must have its [AUDIO REC LEVEL] configured within the range of 1 to 10.)
- **OFF:** The system does not record sound.

An error is generated when your computer is not installed a sound card and you turn on [AUDIO RECORDING]. For more information, refer to “Hardware and Software Requirements” on P4.

③ **OVERWRITE (default: ON)**

You can control whether to overwrite the existing recorded data when the hard disk runs out of free space.

Available options:

- **ON:**

  When the disk runs out of free space, the system overwrites the existing data on a first-in first-out basis.

  (Turning on this setting locks the [Disk Full Reset] button.)
- **OFF:**

  When the disk runs out of free space, the DVR’s “low space” alarm lamp flashes, and the system stops recording.

  (Turning off this setting unlocks the [Disk Full Reset] button.)

If you continuously use the DVR with the [OVERWRITE] setting turned on and the disk runs out of free space, the system overwrites the existing data on a first-in first-out basis. Be sure to back up any important video data before it is overwritten.

☞To resume a stopped recording session:

When [OVERWRITE] is set to "OFF" and the hard disk runs out of free space during a recording session, the system automatically stops the recording session.

If this is the case, you can click the [Disk Full Reset] button to switch to the overwrite mode and resume the recording session.

- **The system switches to the overwrite mode when you resume the stopped recording session using the [Disk Full Reset] button. In this case, however, the system behaves differently than when the "ON" radio button is selected in the [OVERWRITE] section on the window: it exits from the overwrite mode as soon as the recording session restarts. Thus, if the disk runs out of space again, the system stops the recording session again.**
  To remain in the overwrite mode, you have to select the "ON" radio button in the [OVERWRITE] section on the window.
- **The [Disk Full Reset] button is only enabled when [OVERWRITE] is set to "OFF" and the hard disk runs out of free space.**
  This means that you cannot use the [Disk Full Reset] button if there is any free space on the disk.

④ **SERIES REC (default: OFF)**

When multiple DVRs are connected in series via their SERIES REC terminals, you can enable the Series Recording mode, in which a recording session is automatically continued from one hard disk to another when the first hard disk becomes full and unable to accommodate the video data, and so on.

When you use the Series Recording mode, you have to specify how many minutes earlier than the hard disk becoming full the series recording mode should be activated.

Available options:

- **OFF:** Disables the Series Recording mode.
- **-1M:** One minute earlier
- **-2M:** Two minutes earlier
- **-3M:** Three minutes earlier

The model DSR-M800 does not support the Series Recording mode.

⑤ **ALARM MODE (default: ENABLED)**

By selecting an option from the drop-down list, you can control how the alarm mode should work in combination with the timer recording feature.

Available options:

- **OFF:** Disables the alarm recording mechanism.
- **ENABLED:**

  Always enables the alarm recording mechanism, independently of the timer recording settings.
- **AL-REC ON TIMER:**

  Enables the alarm recording mechanism only when a timer recording is in progress.
- **AL-REC OFF TIMER:**

  Enables the alarm recording mechanism only when the timer recording is not in progress.
- **OLY AL-REC ON TMR:**

  Enables the alarm recording mechanism only during the hours for which a timer recording is scheduled.
  (In this case, setting up the timer recording feature does not put it into standby state.)

⑥ **ALARM DURATION (default: 20S)**

You can specify the duration of alarm recording triggered when an alarm condition is detected.
For example, if the duration is set to “5S”, alarm video is recorded for 5 seconds after an alarm signal is received.

Available options:

5S, 10S, 20S, 40S, 1M, 2M, 3M, 4M, 5M, 10M, 15M, CC

If you select “CC”, the alarm recording mechanism continuously works as long as the alarm signal is being received.

The alarm recording mechanism works for at least 5 seconds in response to one alarm signal even if the alarm signal goes off instantly.

⑦ **ALARM TRIGGER (default: ALARM)**

You can configure the alarm recording trigger condition (i.e., when the alarm recording mechanism is activated).

Available options:

- **ALARM (external alarm):**
  When the external alarm device has input an alarm signal to the alarm input terminal on the DVR’s rear panel.
- **SENSOR (motion sensor):**
  When the motion sensor has detected something moving in the video.
- **ALARM OR SENSOR:**
  When either the external alarm device or the motion sensor has reacted.
- **ALARM AND SENSOR:**
  When both the external alarm device and the motion sensor have reacted.

⑧ **VIDEO LOSS (default: ON)**

You can control how the system should respond to loss of the monitor video stream.

Available options:

- **ON:**
  When a video stream is lost, the system displays a “VIDEO LOSS” message on screen, and outputs the corresponding signal to the DVR’s rear panel terminal.
- **OFF:**
  The system neither displays a message nor outputs a signal when a video stream is lost.

⑨ **AUTO DELETE (default: OFF)**

You can turn on or off the Auto Delete feature, which automatically erases obsolete video files that have exceeded a predetermined maximum storage period.

Available options:

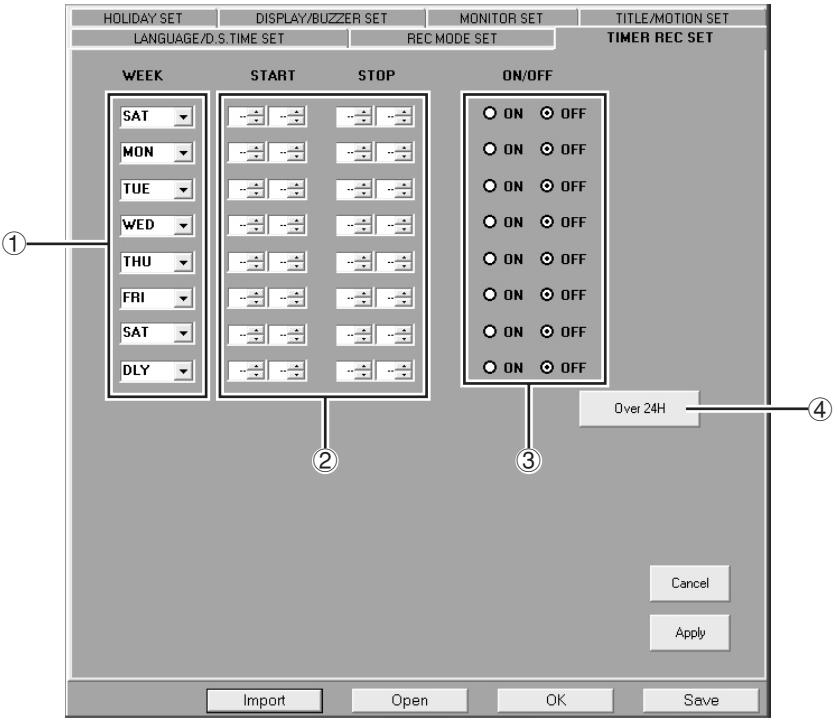
- **ON:**
  Turns on the Auto Delete feature.
  (You have to specify the maximum storage period within the range of 1 to 99 days.)
- **OFF:**
  Turns off the Auto Delete feature.

The AUTO DELETE section is displayed on the window only when the DVR is the DSR-M810/814 complete with the Auto Delete feature. However, some earlier versions of the DSR-810 do not have this feature built in. For details, consult your dealer.

When you have finished configuring the settings on this tab, click Apply and make sure that the tab index text turns yellow. When you have finished your configuration task across all the tabs, finally click OK. Configuration information is uploaded to the DVR, and the tab index text returns from yellow to black. (For more information on the command buttons, see P103.)

3 TIMER REC SET Tab

On this tab, you can configure the timer recording schedules applied to the DVR.



① **WEEK**

Specify the day of the week on which to schedule the timer recording to occur.

Available options:

- **To specify a day of the week, select one of the following:**

  SUN, MON, TUE, WED, THU, FRI, SAT
- **To schedule the timer recording to occur at the same time every day, select:**

  DLY

② **START/STOP**

Specify when to start and end the timer recording.

③ **ON/OFF (default: OFF)**

You can turn on each timer schedule by selecting the “ON” radio button (the “OFF” button is selected by default).
Leave the “OFF” radio button selected if you do not want to immediately activate the timer schedule after you have defined it. This feature is useful when you define several timer schedules and choose from them depending on your need.

④ **Over 24H**

Use this button when you want to schedule a timer recording that continues for more than 24 hours. When you click the button, the last two rows (seventh and eighth rows) are switched to a special format.

☞Basic Configuration Steps for Timer Recordings

To schedule a timer recording, you should follow these basic steps:

1 In the first row, configure the first timer schedule.

Select the appropriate options from the [WEEK] and [START/STOP] drop-down lists, and select the “ON” radio button in the [ON/OFF] area.

<Example>

In this example, a timer recording is scheduled to start at 7:30 and end at 18:00 on every Sunday.

2 Similarly, configure other schedules in the second and subsequent rows.

You can define up to eight different timer schedules.

If two or more timer schedules overlap each other, the schedule that has the earliest start time takes precedence.

☞To schedule a timer recording to occur at the same time every day:

To schedule a timer recording to start and end at the same times every day, rather than on a particular day of the week, select “**DLY**” from the [WEEK] drop-down list.

<Example>

In this example, a timer recording is scheduled to start at 10:00 and end at 20:00 everyday.

A daily timer schedule takes precedence over other schedules with a particular day of the week specified. Thus, when a timer recording with a daily schedule is performed, the system disregards any day-of-the-week schedules that conflict with the daily schedule.

☞To schedule a timer recording that spans two days:

When you specify an end time that is earlier than the start time, the system interprets the end time as a time on the next day and a “**T**” symbol appears. This way, you can schedule a timer recording that continues for up to 24 hours spanning two days.

<Example>

In this example, a timer recording is scheduled to start at 21:00 on Monday and end at 6:00 on Tuesday.

☞To schedule a timer recording that continues for more than 24 hours:

When you want to schedule a timer recording that continues for more than 24 hours, follow these steps:

1 **Click [Over 24H].**
The last two rows (seventh and eighth rows) are switched to a special format. To exit from the special format, click the button again.

2 **In the upper row, specify the day of the week and the time at which to start the timer recording.**

3 **In the lower row, specify the day of the week and the time at which to end the timer recording, and then select the "ON" radio button in the [ON/OFF] area.**

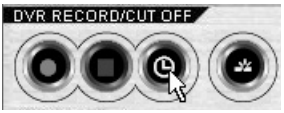
<Example>

In this example, a timer recording is scheduled to start at 04:00:00 PM on every Saturday and continue for 30 hours until 22:00 on Sunday.

You can schedule only one timer recording that continues for more than 24 hours.

☞To activate a timer recording schedule:

On this tab, you can only define timer recording schedules. To have the timer recording mechanism actually work based on your defined schedules, you have to click the timer recording button on the control panel.



The scheduled timer recording is put into standby and will automatically start when your start time conditions are met. The title bar of the window shows the timer recording status with the appropriate symbol.

- Standby : ◷
- Recording in progress : ◷●

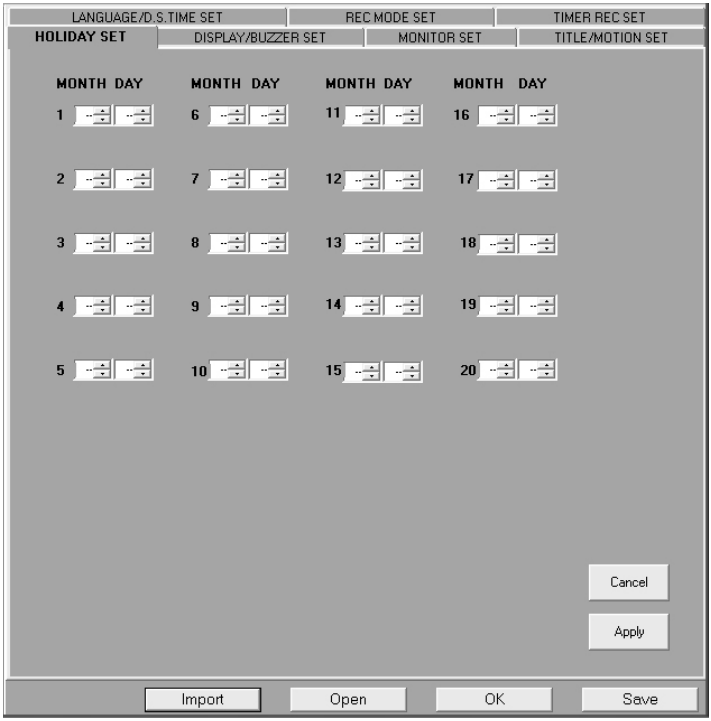
You must have user access level ID3 or higher to operate the timer recording button.

When you have finished configuring the settings on this tab, click Apply and make sure that the tab index text turns yellow.
When you have finished your configuration task across all the tabs, finally click OK. Configuration information is uploaded to the DVR, and the tab index text returns from yellow to black. (For more information on the command buttons, see P103.)

4 HOLIDAY SET Tab

This tab is intended for configuring additional timer recording settings. You can specify any day as a "holiday" so that the system applies the same timer settings on that day, whichever day of the week it is. This can be a national holiday, your company's anniversary, or any other nonworking day.

Define "holidays" using the spin buttons. You can define up to 20 holidays.



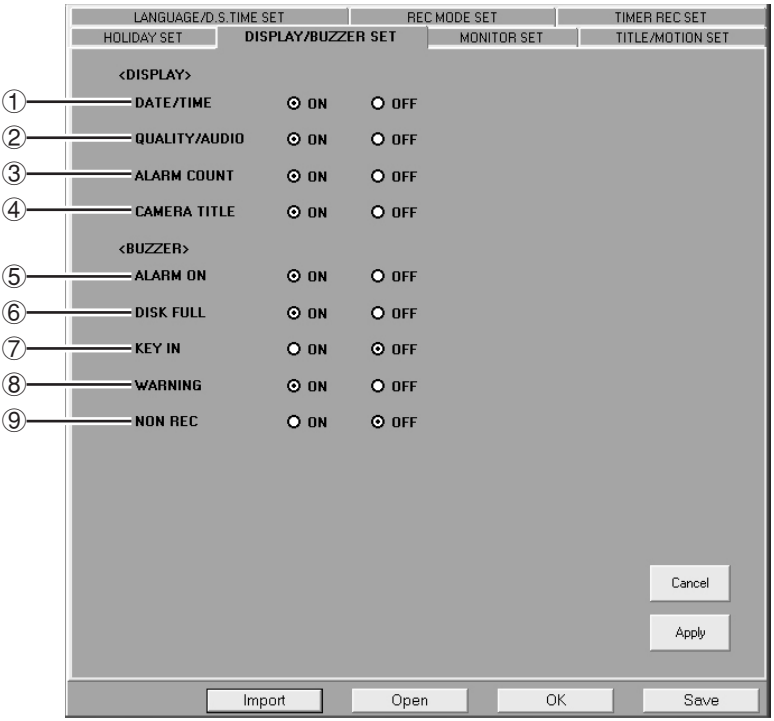
If you select "DLY" for a timer schedule, both "Sunday" and "DLY" timer schedules take effect.

When you have finished configuring the settings on this tab, click Apply and make sure that the tab index text turns yellow.

When you have finished your configuration task across all the tabs, finally click OK. Configuration information is uploaded to the DVR, and the tab index text returns from yellow to black. (For more information on the command buttons, see P103.)

5 DISPLAY/BUZZER SET Tab

On this tab, you can control which items should be displayed on the DVR's user interface and when the warning buzzer should sound.



<DISPLAY>

Specify which items should be displayed on the DVR's user interface by selecting either the ON or OFF radio button for each item.

① **DATE/TIME (default: ON)**

Current date/time for live video; or the date/time of recording for recorded video.

② **QUALITY/AUDIO (default: ON)**

Quality and audio settings.
(Marked with "A" if [AUDIO RECORDING] is set to "ON".)

③ **ALARM COUNT (default: ON):**

Number of alarm events.
(The system counts up to 99,999 alarm events; after the maximum is reached, the count is reset to 0.)

④ **CAMERA TITLE (default: ON)**

Depending on whether the connected DVRs are single-channel or 4-channel, either camera titles or DVR names are displayed as follows:

DSR-M804/M814: camera titles

DSR-M800/M810: DVR names

The camera titles displayed are those configured on the TITLE MOTION SET tab, rather than those configured on the [Tree Edit] window under the Initial Set menu.

<BUZZER>

Specify which conditions should trigger the warning buzzer by selecting either the “ON” or “OFF” radio button for each condition.

⑤ **ALARM ON (default: ON)**

When an alarm condition is detected.

⑥ **DISK FULL (default: ON)**

When the hard disk runs out of free space. (This takes effect only when [OVERWRITE] is set to “OFF”.)

⑦ **KEY IN (default: OFF)**

When a button on the DVR’s front panel is pressed.

⑧ **WARNING (default: ON)**

When any of the following has occurred:

- Hard disk failure
- Fan failure
- Recording error
- VIDEO LOSS

⑨ **NON REC (default: OFF)**

When an ongoing recording session is stopped.

When the DVR’s buzzer has sounded, you can stop the buzzer by pressing any button on the front panel.

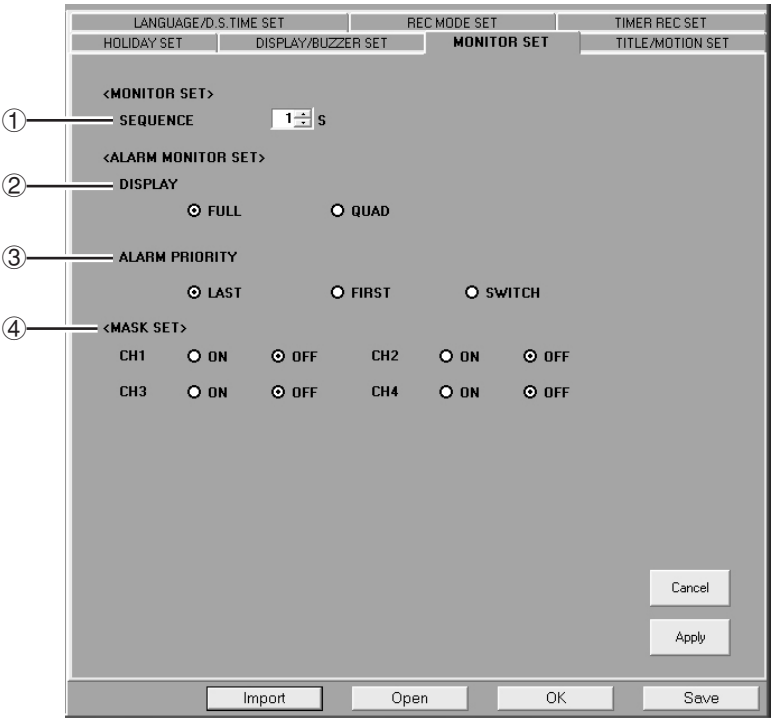
When you have finished configuring the settings on this tab, click Apply and make sure that the tab index text turns yellow.

When you have finished your configuration task across all the tabs, finally click OK. Configuration information is uploaded to the DVR, and the tab index text returns from yellow to black. (For more information on the command buttons, see P103.)

6 MONITOR SET Tab

On this tab, you can control how the DVR's user interface should display video.

This tab is only displayed when you are connected to a 4-channel DVR.



<MONITOR SET>

①SEQUENCE (Default: 1)

Specify the interval at which to switch from one camera to another in Sequential Switching mode.

Valid range: 1 to 30 (seconds)

<ALARM MONITOR SET>

② DISPLAY (default: QUAD)

Specify which layout to use when an alarm has occurred.

Available options:

- **FULL:**

  Uses the single-view layout to display the video from the channel where the alarm occurred.

- **QUAD:**

  Uses the four-view layout to display the video from all the four channels, including the channel where the alarm occurred.

③ ALARM PRIORITY (default: LAST)

When you select FULL from DISPLAY (②), the DVR's user interface can display only channel at a time but, during an alarm recording, another alarm may occur in a different channel. To handle such situations, you can select one of the following options.

- **LAST:**

  Displays the most recent alarm video instead of the view that is being recorded.

- **FIRST:**

  Continues to display the video that is being recorded.

- **SWITCH:**

  Switches the alarm video streams at intervals of one second.

<MASK SET>

④ MASK SET (default: OFF)

When it is critical to ensure the privacy and confidentiality of the video from a particular channel, you can mask that channel to prevent the video from viewed on the monitoring and playback screens.

Available options:

- **ON:** The system masks the video and sound, and a black placeholder labeled as "MASK" appears.
- **OFF:** The video is displayed as usual.

When you have finished configuring the settings on this tab, click Apply and make sure that the tab index text turns yellow.

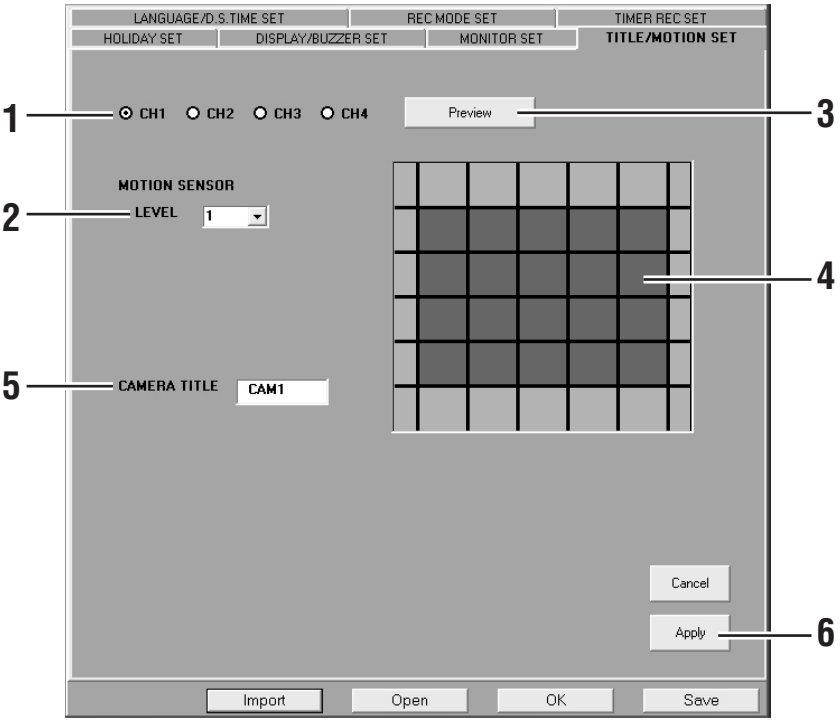
When you have finished your configuration task across all the tabs, finally click OK. Configuration information is uploaded to the DVR, and the tab index text returns from yellow to black. (For more information on the command buttons, see P103.)

7 TITLE/MOTION SET Tab

On this tab, you can configure motion sensor detection settings and camera titles for each channel of the connected DVR.

The motion sensor, when enabled, automatically detects an alarm condition based on the movement of a subject shot by the camera.

- **This tab is only displayed when you are connected to a 4-channel DVR.**
- **To trigger the alarm recording mechanism with the motion sensor, set [ALARM TRIGGER] to an option other than "ALARM" on the REC MODE SET tab.**



1 **Choose a channel.**

For example, select the “CH1” radio button if you want to configure the settings for channel 1.

2 **Set the sensitivity level of the motion sensor.**

Select the appropriate option from the [LEVEL] drop-down list.

Valid range: OFF, 1 (high) to 10 (low)

3 **Click** Preview **.**

The preview pane displays a snapshot (still image) of the video from your selected channel.

4 **Define sensing points by clicking on the preview pane.**

On the preview pane, click grid squares where to position sensing points. To apply a sensing point to a grid square, click the grid square once; to remove the sensing point, click the square again.

- **Transparent:**

  Sensing point applied.

- **Opaque:**

  Sensing point not applied.

You can apply up to 20 sensing points to the middle area of the preview pane, where 20 grid squares are displayed in a 4-column and 5-row layout.

5 **Enter the camera title for the current channel into the [CAMERA TITLE] box.**

A camera title can contain uppercase letters and numbers, up to 10 characters in all. It can also contain these special characters: - : / *. and space.

Defaults:

By default, channel numbers (1 to 4) are used as camera titles.
(CH1: 1, CH2: 2, CH3: 3, CH4: 4)

This system supports two different sets of camera titles: those for DVR’s user interface and those for the DVR Utility Software’s user interface. These two different camera title sets are configured on two discrete configuration windows.

What you configure here are camera titles for DVR’s user interface. When you want to configure camera titles displayed on the DVR Utility Software's user interface, you must use the [Tree Edit] window accessible from the [Initial Set] menu.
For more information, see P76.

6 **Click** Apply **.**

This applies the motion sensor and camera title settings to your specified channel .

7 **Configure the motion sensor and camera title settings for other channels (CH2-CH4).**

Repeat the above procedure (steps 1 to 6).

When you have finished your configuration task across all the channels, finally click OK **. Configuration information is uploaded to the DVR, and the tab index text returns from yellow to black.**

(For more information on the command buttons, see P103.)

MP2 Viewer

MP2 Viewer is a playback-dedicated application designed for use with the DSR-M800/M804/M810/M814 series. It plays back MPEG2-format video files saved from DVR onto a recording medium such as a computer's hard disk drive, a CompactFlash card or a CD-R.

■ Main Features

- Plays back a saved video file.
- For a video file that contains sound data, you can playback the sound as well.
- Saves still images taken from the video file as JPEG files.
- Prints still images taken from the video file.
- Appraises tampering of video or date and time information.

■ Hardware and Software Requirements

MP2 Viewer requires the following hardware and software:

- CPU: Pentium III/800MHz or higher (Pentium 4/1.7GHz recommended)
- RAM: 128MB or more (256MB recommended)
- Display: XGA (1024 x 768 pixels), 16 million colors or higher.
  AGP graphics card with hardware overlay support, PCI Express graphics board, or a mother board with an on-board graphic chip (Requires the latest DirectX 9.0c compatible driver)
- Operating system:
  Windows 2000 Professional or higher (Windows XP Professional recommended)
- Sound:
  Sound card with 48kHz stereo playback support (A sound card is required to listen to the sound part in live or played back video.)

■ Installation

When you install the DVR Utility Software, the MP2 Viewer program is installed as well. Thus, MP2 Viewer does not require a separate installation task.

■ Starting MP2 Viewer

When video data is downloaded from a DVR, MP2 Viewer is also saved automatically from the computer into the download destination folder.
To start MP2 Viewer, simply double-click the MP2 Viewer icon in the folder. You are then presented with the MP2 Viewer main window.

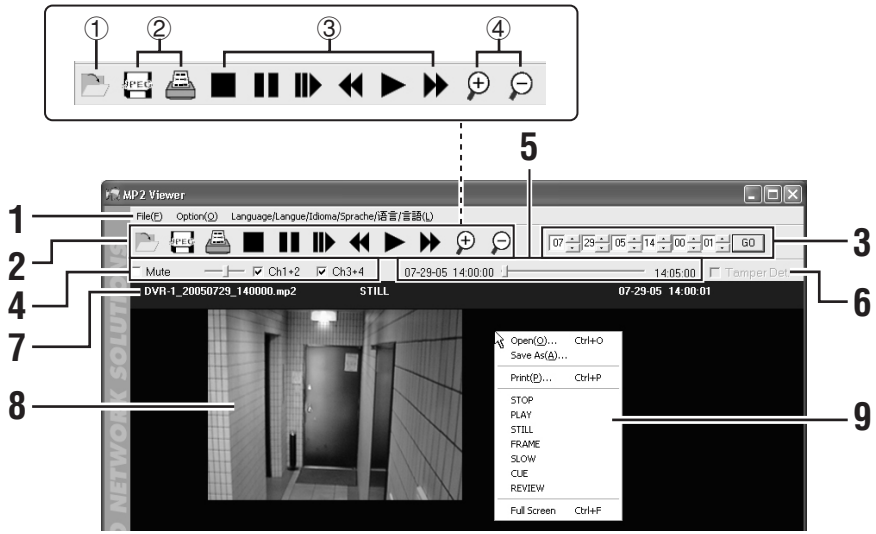
MP2 Viewer allows you to view any MP2 video file contained in the same folder. This means that you can play back vide files even if MP2 Viewer is not installed on the computer you are currently using.

Before you start MP2 Viewer, be sure to shut down any other MPEG player applications.

■ Exiting from MP2 Viewer

On the menu bar, open the [File] menu and select “Exit”.

■ MP2 Viewer Window Elements and Their Functions



1 Menu bar

<File menu>

- **Open:**
  Opens a file (displays the [Play List] window).
- **Save As:** Saves a still image.
- **Print:** Prints a still image.
- **Exit:** Quits MP2 Viewer.
- **About:** Shows the version information.

<Option menu>

- **ZOOM IN:**
  Zoom in on the displayed video (see P126)
- **ZOOM OUT:**
  Restores the video to the original size (see P126).
- **Full Screen:**
  Switches to Full Screen mode (See P126).
- **Overlay Time/Date on JPEG image:**
  Allows you to overlay the video with the file name and time stamp when saving the video (see P130).
- **mp2 file associate with MP2Viewer:**
  Associates the MP2 file with the “MP2 Viewer” (see P125).
- **Tamper Det. Mode:**
  Selects the tamper detection mode (see P128).

<Language selection>

Allows you to change the display language used throughout the user interface of MP2 Viewer.

Supported languages:

English, French, Spanish, German, Chinese, Japanese

2 **Toolbar**

Contains buttons that provide access to the most common commands.

① Opens a file (displays the Play List window).

② Saves/prints a still image (see P130)

③ Provides playback controls (See P125).

④ ZOOM IN/ZOOM OUT (see P126)

3 **Search panel**

Searches the video file for a frame that matches your specified date and time. For more information, see P127.

4 **Sound playback panel (see P126)**

Allows you to turn on/off sound playback, control the sound volume, and select the output channel.

5 **Slide bar**

Allows you to check the playback point with the slide knob position.

Also, you can move the playback point by dragging the slide knob. For more information, see P126.

6 **Tamper Det. (see P127)**

If you want to check the video file for any tampering, select the check box before opening the file.

7 **Title Bar**

Displays the basic information on the displayed video, including the file name, playback mode, and the date and time (time stamp) of recording.

Due to limited space, lettering in the title bar may be partially abbreviated. In such cases, move the cursor to the abbreviated area to complementarily display the invisible part.

8 **Playback pane**

The video is played back in this area.

Since the video files are played back on a DVR by DVR basis, the playback pane layout differs depending on the model of the DVR used to record the video.

- Single-channel DVRs: single-view layout
- 4-channel DVRs: four-view layout

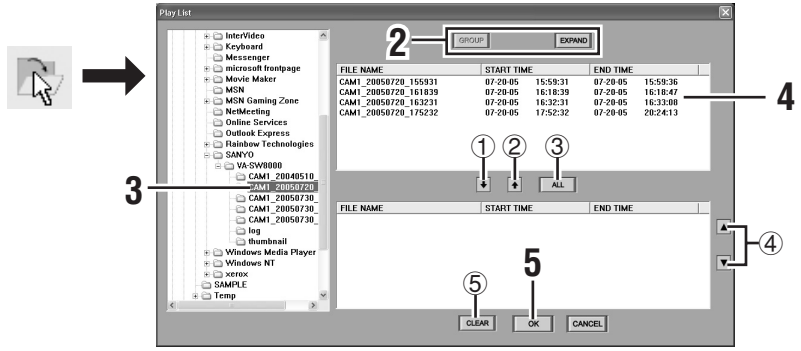
When, in the four-view layout, you specify one of the channels and use the ZOOM IN feature, the playback pane is switched to the single-view layout, and the channel's video is displayed in a larger size.
For more information, see P126.

9 **Context menu**

The context menu appears when you right-click on the playback pane. You can use it to run the same commands that are in the toolbar.

■ Playing Back Particular Image Files

When you want to play back downloaded video files, specify your desired video files on the [Play List] window. You can play back multiple video files in succession.



1 **Click on the toolbar.**

Or open the [File] menu and select [Open].

The [Play List] window appears.

2 **Select the file view mode.**

Specify how to list split files by selecting either of the following two options.

- **GROUP (default):**

  This option provides a simplified view by displaying only the first file in a group rather than displaying the details for all of the split files.
  (If one group contains more than 100 divided files, subgroups that contain up to 100 files are created, and the first file in each subgroup is displayed.)

- **EXPAND:**

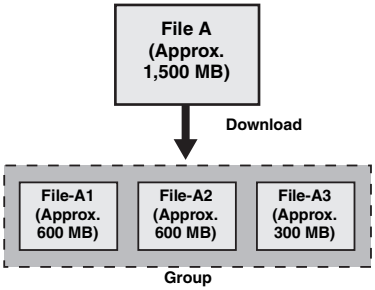
  Provides a detailed view by displaying the details for all of the split files in a group.

Whichever view mode you select, the play list always display entries grouped by download session.

☞What is a "group"?

If a single source video file is larger than 600MB or contains any blank portions or any video data recorded by the alarm recording mechanism, the source video file is automatically split into multiple files and saved as such while the download process is in progress.

MP2 Viewer manages files split from the same video source file as one "group". This scheme makes it easy to play back download files because the files in a group are actually split files but can be played back as if they were a single file. File grouping occurs on a download by download basis.



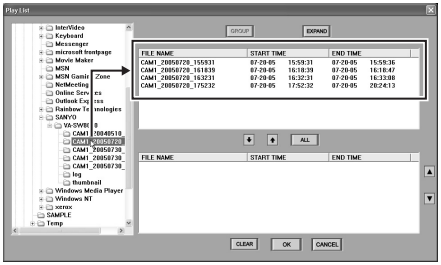
3 Choose a folder.

Click on a folder in the folder list (the left pane). The files contained in your selected folder are displayed in the available files list (the upper half of the right pane), to which your selected view mode (either GROUP or EXPAND) is applied.

List column headings:

FILE NAME, START TIME (recording start date/time), END TIME (recording end date/time)

When the view mode is "GROUP", the END TIME field shows the record end date/time for the entire group.



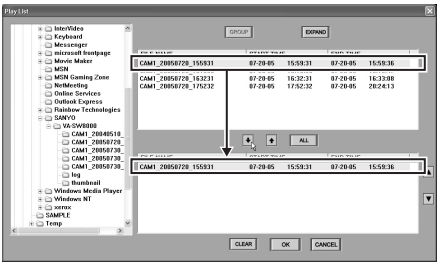
You can sort the files in the available files list based on the data contained in a particular column by clicking the column heading. The sorting order toggles between ascending and descending each time you click the column heading.

4 Select files and add them to the play waiting list.

Files contained in the available files list (the upper half of the right pane) can be added to the play waiting list (the lower half). You can add all files or only selected files to the play waiting list as shown below:

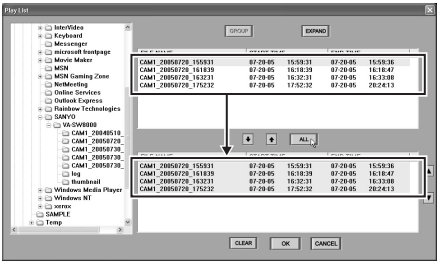
☞To select individual files and add them to the play waiting list:

On the available files list, select a single file you want to play, and then click ↓ (①). If you want to play more than one file, repeat this step for all the remaining files.



☞To add all files to the play waiting list:

Click ALL (③).
All files contained in the available files list are added to the play waiting list.



☞To remove a file from the play waiting list:

On the play waiting list, select a file you want to remove, and then click ↑ (②).

☞To remove all entries from the play waiting list:

Click CLEAR (⑤).

☞**To change display order in the play waiting list:**

The files contained in the play waiting list are played back in the same order as they are listed.

To change the display order of files in the play waiting list, select the file you want to move, and then click ▲ ▼ (④).

You can sort the files in the play waiting list based on the data contained in a particular column by clicking the column heading, just as you can in the available files list. For more information, see P124.

5 **Click** OK **.**

Or double-click the play waiting list.

This closes the [Play List] window and starts continuous playback of the files contained in the play waiting list.

Concerning association of MP2 file and MP2 Viewer

In cases where the “MP2 Viewer” is associated as the default player for stored MP2 files, even if the [Play List] is not displayed, playback on “MP2 Viewer” can be automatically started simply by directly double-clicking the file (see P8, 58).

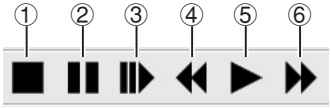
If no association has yet been configured for the MP2 file downloaded with the DVR Utility Software, it can be configured by selecting [mp2 file associate with MP2Viewer] from the Option menu (see P121).

Following file association configuration, file association can be invalidated by deleting the “MP2 Viewer” or transferring it to a separate folder. In this case, restart the “MP2 Viewer” and reconfigure on the Option menu.

■ Playback Controls

● Using the Playback Control Buttons on the Toolbar

You can control the playback using the buttons on the toolbar.



① STOP

Stops the current operation (playback, fast-forward, fast-reverse, slow-play, or pause).

② STILL (FRAME)

Pauses the current operation (playback, fast-forward, fast-reverse, or slow-play) and displays the current frame as a still image. When a frame image is displayed, you can step to the next frame by mouse clicks.

③ SLOW

When a still image is displayed and you click this button, you can switch to slow-play mode at the x1/8 speed. Each time you click the mouse, the speed increases incrementally from x1/8 to x1/4 to x1/2.

④ REVIEW

When you click this button during playback, fast-forward, or pause, you can switch to fast-reverse mode.

⑤ PLAY

Plays the video at the original speed.

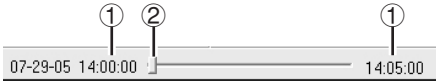
⑥ CUE

When you click this button during playback, fast-reverse, or pause, you can switch to fast-forward mode.

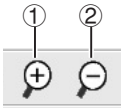
● Moving the Playback Point with the Slide Bar

The slide bar indicates, at both ends, the start and end dates/times for the played back video (①). The slide knob (②) represents the current position of the playback point, and it moves from left to right as the playback proceeds.

Also, you can move the playback point by dragging the slide knob.

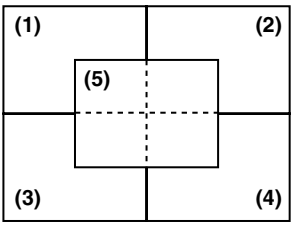


● Enlarging the Video



① ZOOM IN

You can zoom in on a particular area (a quarter) of the video. As shown in the figure below, MP2 Viewer provides you with five areas that can be enlarged, and you can zoom in on each area in order by clicking the mouse.



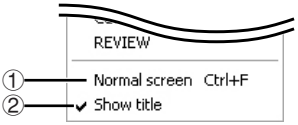
② ZOOM OUT

Restores the enlarged video to the original size.

● Using Full Screen Mode

You can switch to Full Screen mode by opening the [Option] menu and selecting “Full Screen”.

When you switch to Full Screen mode, the currently displayed video is maximized to cover the whole screen with all other user-interface elements, including the menu bar and control panel, hidden from the screen. Right-clicking on the full screen brings up the context menu, and the following operations can be performed apart from normal context menu commands.



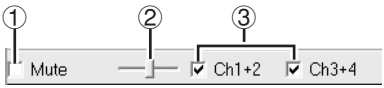
① Returning to normal mode

② Switching between show/hide of the title bar

Returns to normal mode by pressing [Esc] or [Ctrl] + [F].

● Playing Back the Sound Part in the Video

If sound is also recorded in the currently played back video file, you can also play back the sound.



① Mute

To output the sound, clear the check box.

② Volume

Drag the control to the left or right to adjust the sound volume.

③ Channels

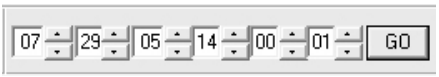
Select the check box(es) that correspond to the channel(s) you want to output the sound from.

■ Searching the Video File for a Specific Frame

You can search the video file for a frame that matches your specified date and time.

1 **Specify the date and time.**

Specify the date and time to apply as the search criteria using the spin buttons on the search panel.
(month/day/year/hour/minute/second)



The slide bar, at both ends, indicates the start and end dates/ times of the video file. You have to specify the search criteria within this range.

2 **Click** GO **.**

MP2 Viewer searches the file for frames that match your specified date and time, and displays the search results.

You can use the search feature only when you are in stop, pause, or normal playback mode. This feature does not support other playback modes (fast-forward, fast-reverse, and slow-play).

How MP2 Viewer displays the search result differs depending on the mode from which the search was initiated.

- **Stop or pause:**
  Displays the frame that matches the specified date and time as a still image.
- **Normal playback:**
  Moves the playback to the frame that matches the specified date and time, and continues the playback from there.

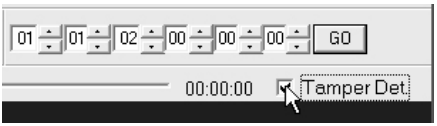
■ Checking Video Files for Any Tampering

You can appraise whether or not video or date and time information of stored files has been tampered with.

Tampering of date and time information can only be detected when the DVR from which video data was downloaded is DSR-M810(P)/DSR-M814(P) and the firmware version is 2.30-00 or higher.

1 **Enable the tamper detection feature.**

Before you open the video file and display the [Play List] window, select the [Tamper Det.] check box.
The tamper detection feature works on all the image files loaded into the Play List.



2 **Select the tamper detection mode.**

Select [Tamper Det. Mode] in the Option menu on the menu bar.

Options:

- **Simultaneous with playback (default):**
  Performs tamper detection during playback.
  Audio is not played back.
- **Prior to start playing back:**
  Performs batch tamper detection before playback.
  When playback is conducted after tamper detection, audio is included.

3 **Conduct playback of video files.**

Register the video files you want to appraise for tampering on the play waiting list and click [OK] (see P124).

Appraisal is started according to the tamper detection mode.

- Tamper appraisal can be started simply by dragging and dropping video files into the playback screen area.
- Once the [Tamper Det.] check box is selected, any attempts to play back files by double-clicking them on the play waiting list are invalid.

4 **Display of appraisal results.**

In the case of "Simultaneous with playback"

Playback is started and the appraisal results are displayed in the color of the title bar of the video currently being played back.

- **Blue:**
  When playback starts, the title bar turns blue, and remains blue until tampering is detected. If the title bar is still blue when the playback ends, it means that no tampering is found in the video file.
- **White:**
  The title bar turns white if any tampering is detected during the playback.
- **Green:**
  If a tampered frame is detected, the title bar remains green and does not revert to blue, even after the check moves past the tampered section.
  If the title bar is still green when the playback is completed, this means that tampering has been detected from the file.

If tampering of date and time information is detected, the display is as follows.

Title bar: **White**

File name: **Black**

Date and time information: **Red**

In the case of "Prior to start playing back"

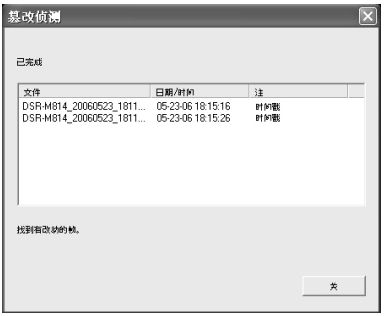
The top still image is displayed and tampering appraisal of all the files registered in the list is started.

The appraisal results are displayed in a dialog box prior to the start of playback.

<If no tampering is detected>

- Click [Yes(Y)] to start ordinary playback.

<If tampering is detected>



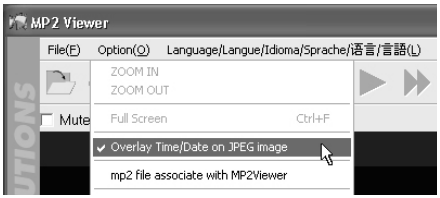
- A list of the file names and tampered dates and times is displayed.
- If tampering of date and time information is detected, **"Time-stamp"** is displayed in the Remarks column.
- By designating and highlighting a line, a still image of the tampered area (the top still image if date and time information has been tampered) is displayed.
- If video is played back after the appraisal, the results are not displayed in the color of the title bar.

■ Saving a Still Image

You can save a still image as a JPEG file on another storage medium.

1 **Select the "Overlay Time/Date on JPEG image" option as needed.**

You can overlay the image with the file name and time stamp when you save it. You can select this option from the toolbar option menu.



(This overlay feature is turned on by default.)

2 **Display a still image.**

Click ❚❚ during playback.

3 **Click JPEG on the toolbar.**

On the [Save As] dialog, save the image as a JPEG file by specifying the folder and file name.

■ Printing a Still Image

You can print a still image through the following steps:

1 **Display a still image.**

Click ❚❚ during playback.

2 **Click 🖶 on the toolbar.**

This button opens the [Printing] dialog, and you can print the image at the full size by specifying the appropriate print options.

The printed image is automatically overlaid with the file name and time stamp.

- **When no still image is displayed, the JPEG and 🖶 buttons are disabled.**
- **When you zoom in on an image, you cannot save or print the image.**

SANYO Electric Co., Ltd.

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L9EAR/WA (0706KP)